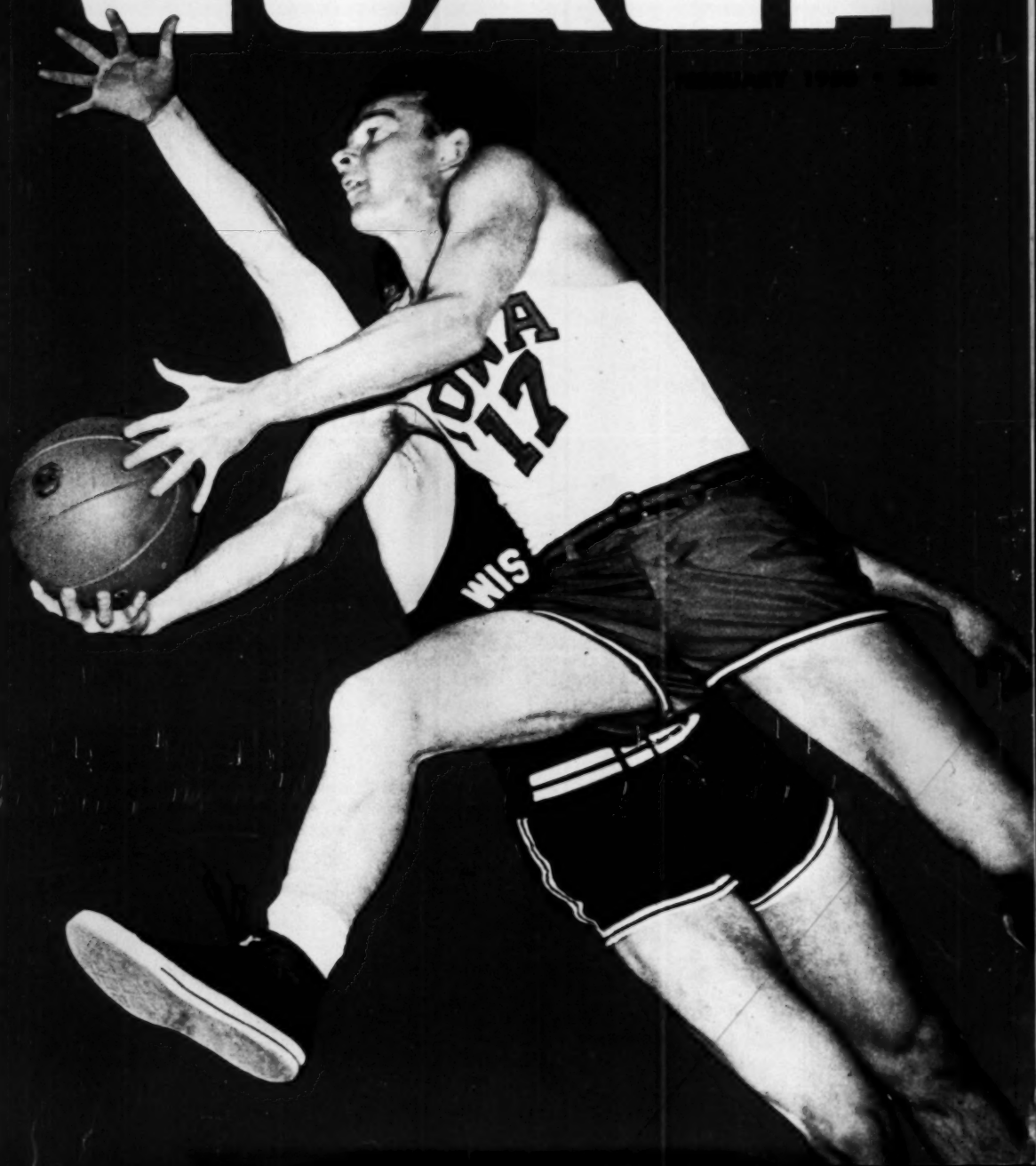


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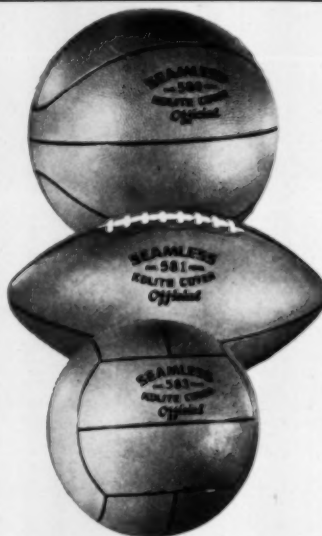
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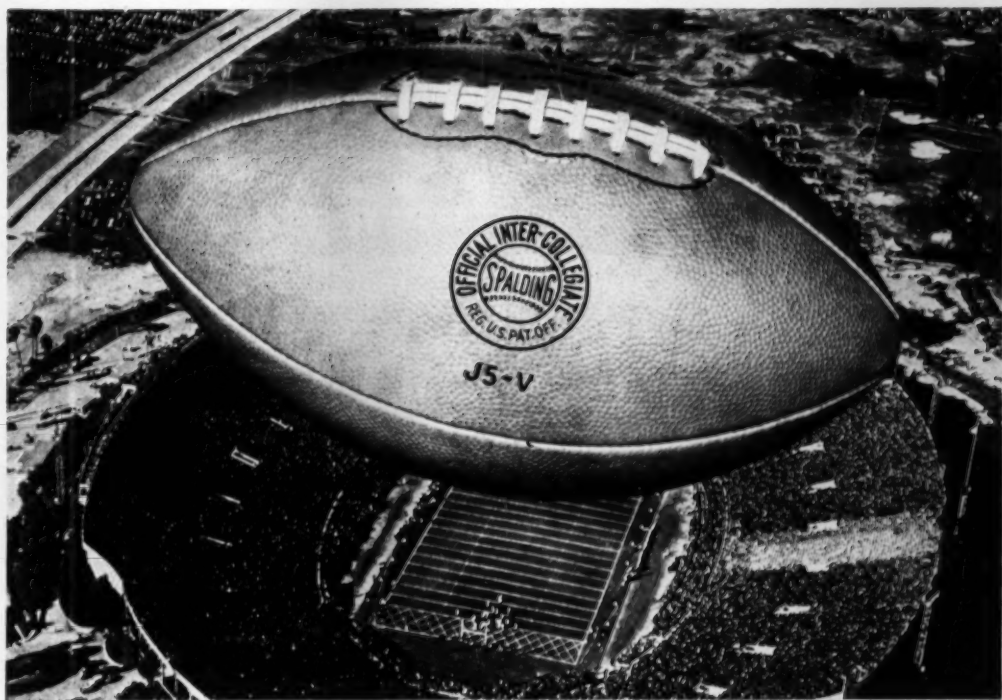
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SCHOLASTIC COACH

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VOLUME 19 • NUMBER 6 • FEBRUARY

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A vote for platoon football

NOW that both the rules men and coaches have reaffirmed their faith in the free-substitution rule, we hope the nation's sports-writers will stop plaguing the grand old gaffers of the grid game for their views on platoon football.

For three years now, every pristine player and his septuagenarian brother have been prodded into critiques bristling with rheumy invective about the "menace" of platoonism.

"Platoon football is making a farce of the game," they wheeze. "It is taking the character building out of football and making specialists of the boys. What's more, the game is softening up. It is no longer a test of mental and physical toughness. How many boys today can play 60 minutes of football the way we used to in the old days?"

While you can hardly blame the old-timers for hanging on to their memories, their argument is a snore and a delusion. Platoon football is one of the greatest things that has happened to the game since the invention of pigskin.

First of all, it gives twice as many boys a chance to play regularly. That, *per se*, is all the vindication it needs. For there is nothing more discouraging to a squad than to sit on the bench week after week and watch 11 regulars play practically the entire game.

ACTUALLY, the free-substitution role is a natural development of the modern game. The game today is far more demanding than it was in the '10s and '20s. It requires quicker thinking, quicker movement, and a more scientific application of strength.

Because of these demands, it isn't geared for 60-minute performances. The average player can't operate at top efficiency over that period, and it is sensible, both from a physiological and efficiency standpoint, to rest him occasionally.

This hardly means that the game

is "softening up." On the contrary. The modern player actually is tougher than his pristine brother. Why not? Isn't he better coached, better conditioned, better trained, and worked harder and longer?

Those 60-minute performances the old boys keep harping on, don't stand up too well under inspection. In the paleolithic age of football, it was possible to play 60 minutes week after week, for the game was much slower and far less complicated.

ANOTHER thing to remember was that the better players had to stay in there the full 60 minutes. Few coaches had the manpower to substitute freely. The drop in talent from the first to the second string was acute, and a coach had to stick with his best men.

Nowadays, with more high school kids playing the game than ever before and with more of them going to college, the average college coach has much more material at his command and, in a sense, is obligated to use it. The platoon system thus comes as a boon.

How about that specialization charge? Nonsense. For one thing, most platoon disciples give all their boys a pretty thorough schooling on both offense and defense before breaking them up into units.

So what if the emphasis thereafter is placed on one or the other? You have to be plenty tough to play either offense or defense up in the big time, and we doubt whether even Professor Cureton could prove that a 60-minute player accumulates more character genes than a 30-minute player.

From the morale standpoint, a fair question to raise is this: Is the morale of a boy on the defensive platoon as high as that of a boy on the offensive unit? The answer is "yes"—provided the boys are "sold" on the idea. Thereupon hangs a tale.

At the recent college coaches con-

vention, a famous coach told us that when he first instituted the two-platoon system, he ran into a ticklish problem. His captain, a powerful guard, was undoubtedly both the best offensive and the best defensive lineman. After considerable deliberation, the coach decided that the boy could be put to best use in the defensive platoon.

The boy demurred. Why couldn't he play in both platoons? The coach took the boy into his confidence. He told him that the coaching staff had made a motion picture study of all their previous games and that this study proved that a lineman's effectiveness diminished the longer he was kept in the game.

To further prove the point, the coach took the boy into the projection room and showed him pictures of games in which the boy had played nearly the entire way. By slowing up the action here and there, he made the boy see for himself how his effectiveness decreased as the game went on.

That "sold" the boy. He took his place in the defensive platoon and became the strong man of the line.

IF ANYTHING, the platoon system has increased morale. It has injected a healthy intra-squad competitive note into the game. The defensive unit is always vying with the offensive unit, and vice versa. Both are fiercely proud of their jobs, and are always kidding the other.

Final point: Is the double-platoon system unfair to the smaller squads? This can be brushed off lightly. Actually, the free-sub rule was drafted to help the smaller schools. Suppose, even with the rule, a school hasn't the manpower to make up two good platoons. Wouldn't it be at a disadvantage against a bigger school with more manpower?

Certainly. But it shouldn't be playing the bigger school in the first place. If a school hasn't the manpower to cope with an opponent, it has no business booking them.

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the Cleveland Browns

IT'S WILSON TODAY IN SPORTS EQUIPMENT

"SPEED PLAY" Distance Training

By J. KENNETH DOHERTY

Track Coach, University of Pennsylvania



Fred Wilt, America's greatest distance runner, and Gunder Hagg, world's mile record holder, matching stride for stride in Hagg's American debut several years ago. Though living a continent apart, both these men observe the Swedish plan of distance training—*Fartlek*, or "Speed Play," described herein by the former Michigan coach now coaching at Penn, Ken Doherty.

TREMENDOUS interest and enthusiasm has been aroused among American distance runners and coaches by *Fartlek*, the latest Swedish contribution to distance running.

Fartlek, or "Speed-play," can be described as a series of long wind sprints interspersed with restful walking and jogging on soft country paths.

Almost every outstanding American runner—Fred Wilt, Curtis Stone, Horace Ashenfelter, Bob Black, Browning Ross, and a host of others—is now observing some phase or all of its basic tenets. Wilt speaks of it as being "physically and mentally refreshing as compared with the conventional American method of training exclusively on the track."

Cordner Nelson, in a series of six highly informative articles on *Fartlek* in the *Track and Field News*, declares that "it will lead to better distance running in America," and then goes on to summarize its principles as being "a three-way paradox; run faster, run farther, but don't get tired."

This is a paradox, indeed, which certainly needs further explanation. In a subsequent article, Nelson presents "a fairly typical program as recommended by Gosta Holmer, the Swedish Olympic coach and originator of *Fartlek*, for training in the mile:

Monday

1. *Fartlek* for 45 minutes.
2. First 440 of race.

3. Repeat two or three times. (Easy running for five minutes between these runs.)

4. Walking and easy running to complete two hours work.

Tuesday

1. *Fartlek* 20 minutes.

2. 880 on track (2 sec. per lap slower than race).

3. Repeat within an hour. (Easy running on grass between and after trials.)

Wednesday

Walk in woods for two hours.

Thursday

Same as Monday, but run uphill two to nine times for 150 yards each time during *Fartlek*.

Friday

Same as Tuesday, but run four 440's instead of three 880's, each lap one second slower than racing speed.

Saturday

Rest.

Sunday

Warm up and run a mile. (First 440 and last 100 at racing speed. Middle of race 2-sec. per lap slower than racing speed.)

"Work out hard every ten days. These schedules are not blueprints. They are merely suggestive and should be adapted to each individual's energy, maturity, and requirements."

There are many implications that can be drawn from this schedule and the other materials contained in the six articles.

The idea behind *Fartlek* is new and revolutionary only in the sense that it is a deliberately planned reorganization and re-emphasis of principles that are as old as organized running itself.

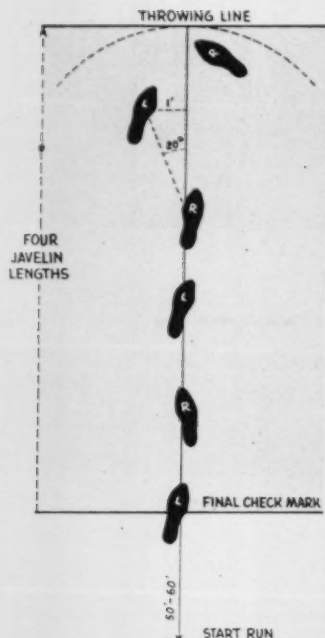
"Running farther" is certainly not new. The time-honored English system of cross-country running over hill and dale speaks for itself, and the work-outs of W. G. George and other professional runners at the turn of the century are still pre-eminent in this quality of running farther.

Not even the so-called "inhuman" schedule of Zatopek of Czechoslovakia, who does not, by the way, follow *Fartlek*, is longer than that

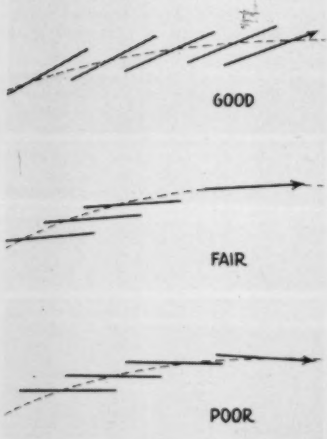
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Finnish Javelin Throwing

By RICHARD V. GANSLER and MATTI JARVINEN



Above: Diagrammatic picture of approach (broken curve represents new Finnish experimental throwing line). Below: Effect of javelin attitude on flight path.



THE first question a boy interested in the javelin throw will ask is: "How soon can I begin learning and practicing the event?"

In Finland, the greatest javelin-throwing nation in the world, it is the general feeling that since the javelin is a combination skill and power event, skill training can be begun profitably at 10 years of age.

Various sized javelins are made for boys of all ages, and the prime emphasis, at least until the age of 16, is on learning form and seldom throwing for distance.

According to the chart on page 36, the javelin thrower reaches his peak at 25.9 years of age. Actually, however, age is of little significance. The event requires a high degree of skill and the man who learns the fastest does not always wind up with the greatest performance.

It is particularly interesting to note that last year Jarvinen, at the age of 40—or 17 years after winning the Olympic title—hurled the javelin 230 feet! The current Olympic champion, Rautavaara, is 34 years old and still throwing over 235 feet regularly.

How do the Finns do it? There is no secret. It is by hard work—hard work on training and hard work on form. Not just any training and form, however. But proper training and proper form.

Let us see what this training and form consist of. First let us analyze the mechanics of the throw—in a simplified manner that any coach or boy can understand.

The run and shift. The critical determiner of the throw velocity is a smooth, efficient javelin shift. Only by walking through this cross-step procedure hundreds of times can the athlete hope to perfect his coordination.

It is interesting to note that Rautavaara spends three-fifths of his training time on running and form work, and very little time on throwing for distance.

To perfect the lowering of the javelin and cross-step (as will be

described later on), the authors recommend constant practice on walking through the shift during the early season. There is no substitute for this procedure.

Length of the run. A run of 60-70 feet is adequate for most throwers. This refers to the approach to the final check-mark, which lies four javelin lengths (about 30 feet) from the board.

Characteristics of run. The run must be very relaxed, with the javelin held overhead with the front tip down at an angle of about 45° from the horizontal. The fingers grasp the javelin loosely yet firmly.

There must be perfect coordination between the rhythm of the legs and the back-and-forth motion of the javelin. The simplest way to perfect this is to run around the track carrying a javelin until the rhythm becomes natural.

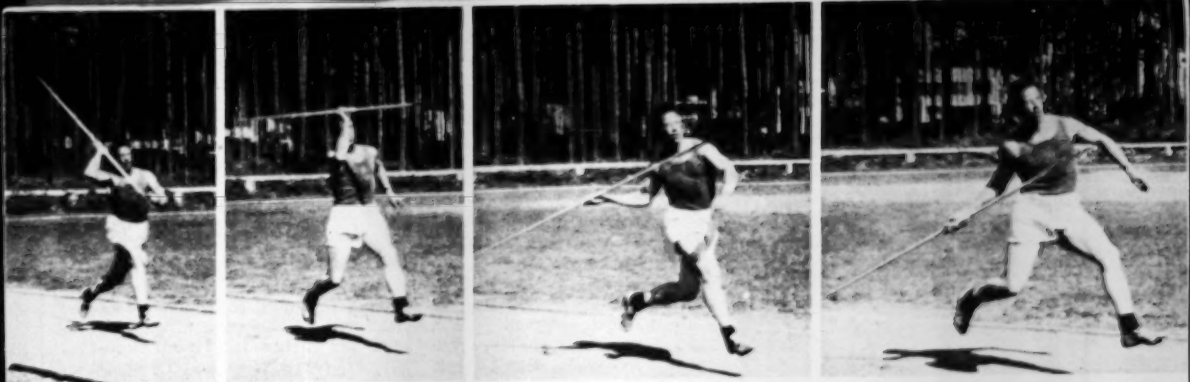
The body should lean very slightly forward during the run, primarily from the hips. As the takeoff or last check-mark is reached, the thrower should begin to straighten up and settle back so to speak. The subsequent explosive effort depends entirely upon these smoothly balanced preliminary procedures.

During the run, the thrower is attempting to augment the throwing velocity of the javelin by having the javelin moving forward (via the run) at the instant the main explosive force is applied. Mechanically, a partially accelerated body requires less applied force than an inert body to bring it to a given peak of velocity.

Some idea of the velocity of the javelin may be gleaned from the fact that to reach 245 feet with the javelin a throwing velocity in excess of 80 feet per second or about 54 miles per hour, is needed.

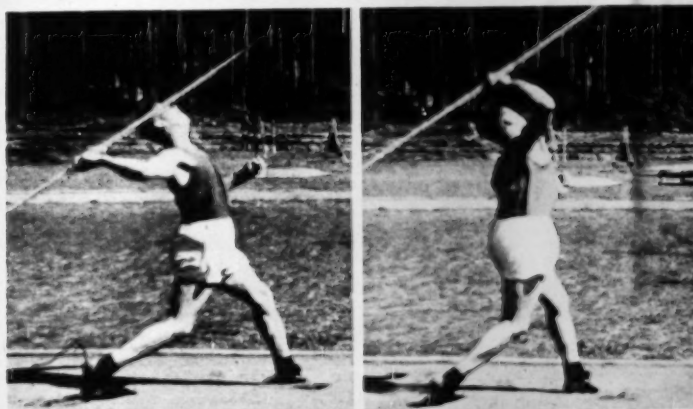
Rhythmic timing concept. It is extremely important to be able to control the run speed in a rhythmic pattern during the shift and throw, since an overly fast approach will necessitate an excessive slow-

(Continued on page 34)



A Throw by Jarvinen

The 10-times ex-world's record holder—"Mr. Javelin" himself—demonstrates the mechanics of the throw in a motion picture sequence taken in Finland exclusively for *Scholastic Coach* by Richard V. Ganslen.



Pitching Polish

DURING the inclemency of early spring, an enterprising coach can do more than just throw in the gym. He can take this time to inculcate the fundamentals of pitching, and thus save many precious hours when the squad is able to move outdoors for group practice.

In the succeeding paragraphs, I will set forth a few gymnasium practices which can help develop the pitcher's control, polish, and general effectiveness. (It is control and polish that chiefly distinguish the "leaguer" from the "busher.")

The first detail to work on is a correct and legal stance. This is clearly defined in Rule 27. The pitcher—and we'll assume he is a right hander—must place his pivot or right foot on or in front of, and always in contact with, the rubber. The best position for the left or free foot is slightly to the rear. At no time may either or both feet be to the side of the rubber (see diagrams).

The gloved hand should be extended and relaxed at the side, while the right hand may hang loosely at the side or rest lightly behind the body. Complete body relaxation is the keynote at this time.

This stance is commonly employed whenever a wind-up is to be used. It readily permits the

pitcher to obtain the catcher's signals with the minimum waste of time and energy. Incidentally, most pitchers prefer to shake off a signal with a slight shake or lift of the gloved hand. Obvious acceptance of the sign is indicated by the start of the pitching motion.

When no wind-up is to be used (runners on base), a slight variation in the stance is demanded. A satisfactory method which minimizes the danger of balks is a stance astride the rubber or, preferably, one in which the right foot is in contact with and in front of the rubber, and the left foot out in front—as shown in the diagrams.

The pitcher thus takes his signs while on the rubber. The ball is held out in front about belt high. If a stretch is used, the ball must be brought to a definite stop before completion of the delivery. (See Rule 31, Sec. 5.)

By opening his stance—slightly moving the left foot towards first or left oblique in reference to the pivot foot—the pitcher will be able to see the runner without any tell-tale movements of the head. The amount of angle or "openness" should be kept to a minimum.

Whenever the runner on first makes a break toward second, the pitcher can back off the rubber with a simple and quick backward step

BOO FERRISS

Regular delivery: Note how left foot is brought back at start of pump (No. 1) and how right foot is slid into hole (No. 2). Ferriss kicks left foot back and throws with a beautiful free and easy motion. (Courtesy The Open Road for Boys)

ART HOUTTEMAN

Man on first: Keeping left foot slightly open and a bit toward first, pitcher watches runner over left shoulder. Ball is held at chest level and delivered with one swift motion, eschewing extraneous movement—wind-up and exaggerated kick-up. (Wide World)



By Sidney (Sam) Hale

of the right foot (see diagram). He is now eligible to throw to any base without penalty.

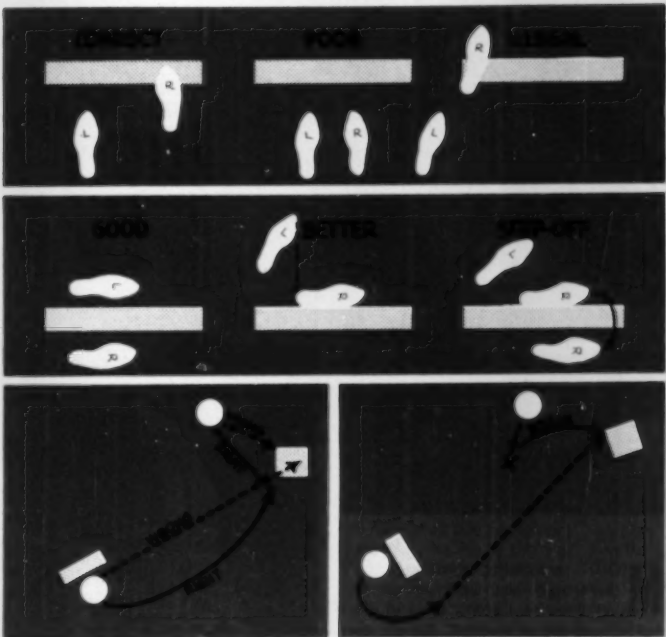
As your pitcher practices this maneuver, caution him to avoid any movement of the body and not to lower the hands until the foot is off the rubber.

This simple backing-off drill offers a valuable opportunity to correlate Rule 27 with Rule 31, and the time spent on it will eventually reap dividends in defensive play.

Plenty of running and body-bending calisthenics such as the touching of opposite toes, should be correlated with the throwing in the gym, as the tonicity of the leg, back, and shoulder muscles is a vital prerequisite in pitching.

Before the boys do any hard throwing, make sure they have adequately warmed up. Place the receiver about 20 to 25 feet away, and have the pitcher start with easy tosses. After a few throws, the pitcher should move a step or so backwards and repeat the process, continuing to throw (straight fast balls) and retreat until the maximum pitching distance has been reached.

Two factors that will promote control are: One, a catcher who presents his mitt as a target for high and low pitches; and, two, a home plate that provides an oppor-



Top: Possible stances on rubber with no one on base. Center: Possibilities with bases occupied, plus correct step-off. Bottom left: Right and wrong ways of covering first on slow-hit balls to right side. Bottom right: Pick-off at second.

tunity to shoot at corners. Emphasize the importance of always focusing the eyes on a selected spot, and that it's not how hard but where the ball is thrown that counts most.

After a semblance of form and control is acquired, the boys may be permitted to cut loose a little more each day. However, they should be warned not to do any throwing

when the arm feels tired or heavy. In this contingency, it is better to run or possibly practice bunting.

Also keep a sharp lookout on the timing of the delivery. Since a stereotyped, habitual delivery invites runners to steal, see that the pitcher varies the timing of his pitch.

No two pitchers grip the ball identically. But the important thing

(Continued on page 56)





High Bar Stunts

MOST beginning gymnasts like the high bar best of all the gymnastic apparatus and find it the easiest to master. A safe and fun-filled activity it is particularly helpful in developing the entire upper body, especially that all-important mid-section.

Because most gymnasiums possess only one high bar, teachers will probably find it best to work with one group at a time. While one squad is working on the high bar, the rest of the class can be practicing on other pieces of apparatus. After a stipulated interval, the groups can be rotated.

For best results, the group at the high bar should be restricted to eight men. This assures each boy of a chance to practice the stunts and to rest between attempts without too much standing around.

Two long mats, placed end to end below the high bar, will afford protection for the performers. For further safety, the bar should be rubbed clean with a piece of emory cloth whenever it becomes encrusted with carbonate of magnesium (the preparation many gymnasts use to prevent slipping — commonly called "chalk").

The performer "chalks up" before each stunt by coating his hands with the carbonate of magnesium (which can be purchased at almost all drug stores for 5¢ or 10¢ a block).

The Grip: The overhand (knuckles up) grip is used in most stunts, the thumbs circling the bar.

Swing and Dismount: The first things the beginner should learn are the swing and dismount. They are easy to learn and serve as an intro-



Upper left: Raising of right thigh from bar and beginning of backward throw in single knee circle back. Performer pushes downward with hands and throws head and shoulders back.

Left: Beginning of pullover. Legs have been brought to bar and chinning action is just beginning.

Below: Single knee circle forward. Performer raises himself from bar and throws his weight forward. Similar to back circle except that grip is reversed.



duction to the high bar, as well as being an important part of many stunts.

1. By standing slightly in back of the bar and jumping to the hang position (normal grip, arms straight), the performer obtains a very slight swinging position.

2. On the backward part of that preliminary swing, he should chin himself, bringing his feet up to the bar at the same time.

3. As he reaches the back end of his preliminary swing and starts forward, he should kick up and out, straightening his arms at the same time.

The performer dismounts at the end of the backward swing by pushing down on the bar, piking slightly, and dropping straight down, landing on the balls of his feet.

Knee Circles: The next stunt the student should learn is the single knee circle backward. This stunt, with its several variations, is easy to learn and whets the beginner's appetite, making him eager to advance to the more difficult stunts.

1. From the dead hang position, the student brings one leg through his arms and hooks it over the bar, raising his other leg until his thigh touches the bar.

2. Then he kicks downward hard with his second leg and pushes downward with his arms. He thus winds up sitting on top of the bar, one leg over and the other hanging straight down in back of the bar. Now he is in position to perform the stunt.

3. First, he pushes downward with his hands, thus raising himself from the bar.

By JACK MILLER

Photographs by Ralph Zuccarello

4. Then he throws himself backward, stretching as much as possible in order to lengthen his swing, hooking his knee tightly over the bar as he goes off balance backwards.

5. As he is falling backwards, he throws his head and shoulders back.

6. The free leg can be used to give added momentum.

7. The swing is shortened underneath the bar, and the performer brings the thigh of his free leg to the bar to increase the spin.

8. At the end of the stunt, he is sitting on top of the bar in his original position.

A variation of this stunt is the single knee circle-forward. It is performed in a similar manner except that the grip is reversed, and the performer travels around the bar in the opposite direction.

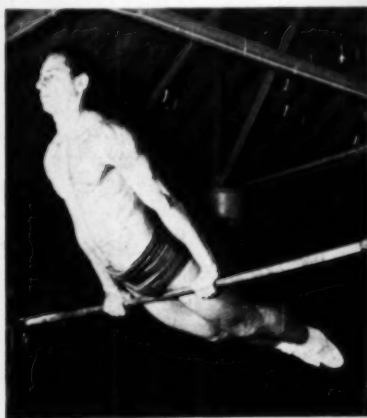
The performer should be spotted closely, one man standing under the bar on each side of him to prevent him from falling if he should accidentally loose his grip.

The Pullover is a fundamental mount on the high bar requiring a fair amount of strength.

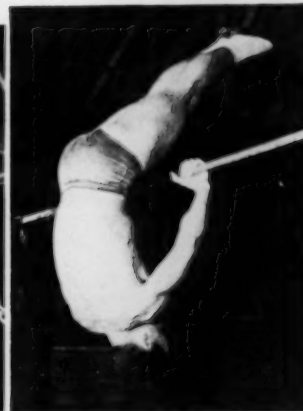
1. From a dead hang position, the student begins chinning himself and raising his legs to the bar.

2. As he nears the top of his chinning action, he allows his feet to

Forward Hip Circle: In starting position (left), performer keeps thighs against bar, back arched, and head held high. At mid-point (center), performer reaches forward and downward with head and upper body. To regain starting position, performer, while moving under bar, curls up quickly on other side, shifting grip (right).



Backward Hip Circle: In cast (left), performer sinks in to bar then tosses legs backward, supporting weight on arms. As legs come forward and under bar (right) performer bends slightly at waist and throws head and shoulders back.



travel over the bar, throwing his head backward at the same time.

3. At this point, the student applies more effort in his chinning action so that he will finish the movement by lying across the bar.

4. He then straightens up, and the pullover is complete. By keeping his arms straight when in the final position, the gymnast can make his arms and shoulders carry some of the load and ease the weight off his stomach.

At the end of this stunt, the performer is in position for the next stunt, the hip circle.

The Hip Circle: There are two types of hip circles, front and back.

The Front Hip Circle:

1. From the front rest position (the position the performer is in at

the finish of the pullover), the performer sinks in to the bar, bending at the waist.

2. Supporting his weight on his arms, he tosses his legs backward.

3. As his legs come forward and under the bar, he bends slightly at the waist, keeping his belly close to the bar.

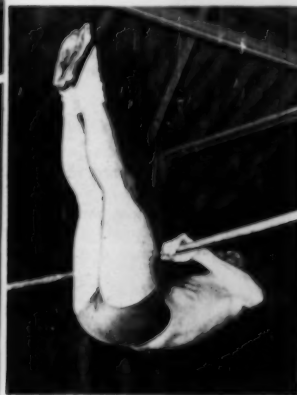
4. He throws his head and shoulders backward as he travels under the bar, arching his back at the same time.

5. By bending his arms slightly as he travels below the bar and straightening them as he comes up on the other side, the performer gives himself a little extra push.

6. The final position is the same as the beginning position.

A common fault of beginners is that of casting off from the bar and then coming directly back to the bar and letting it hit them in the stomach instead of going under it. The

(Continued on next page)



student should be warned about this.

The Backward Hip Circle:

1. The starting position is a high front rest, the bar against the performer's thighs.

2. The performer reaches forward and downward with his head and upper body.

3. As he moves under the bar, he curls up quickly on the other side, shifting his grip slightly.

Both the front and back hip circles require a fair amount of speed in their execution.

The Kip is a more advanced stunt than the others and requires much coordination on the part of the student.

1. The performer obtains a medium swing.

2. He keeps his back arched during the swing until he reaches the front end of the arc.

3. At the front end of his swing, he breaks his arch, flexing his hips and bringing his feet to the bar.

4. He remains in this position as he starts swinging backward until the hips are past the vertical stands of the high bar.

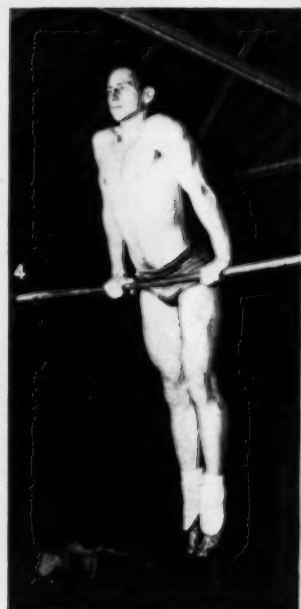
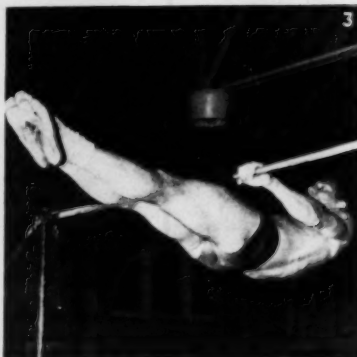
5. Then he kicks his legs up, outward, and then down, at the same time pressing down on the bar and keeping his arms straight.

6. The final position is the front rest.

The kip will require much practice, but the instructor can help the student get an idea of what the motion is like by giving him an upward push on his shoulders as he begins kicking his feet up, outward, and down. The kick is the important movement in this stunt. It is the difference between doing it and not doing it.

The beginning gymnast has a tendency to crack his shins against the bar as he brings his legs up, and should be warned about this.

It is usually a good idea to have one or two spotters standing by when any novice begins working on the bar. The spotters should stand near the side of the high bar so they



The Kip: Picture No. 1 shows the front of the forward swing, with the body in an arched position. The arch is broken at the front end of the swing (2), and the performer brings his feet to the bar—a little above the ankles. As the performer's hips pass the vertical stands of the bar on the swing back (3), he kicks his legs up, outward, and then down. The final position—the front rest—is shown in picture No. 4. Note pointed toes and erect position of the head.

won't interfere with the performer.

There is one important point about form that holds true for almost every gymnastic stunt: **KEEP YOUR LEGS STRAIGHT AND TOGETHER.**

One ailment that most high-bar men are susceptible to, is known as "rippers." That is, the skin on the palm of the hand blisters and tears open as a result of the constant friction. The only thing to do is to apply vaseline, rest the hands for a week or so, and get back on the apparatus. It won't take long to harden the skin.

Good safety rules (proper spotting, use of mats, and a graded teaching program) should be carefully observed and their importance stressed, especially to groups which cannot always be individually supervised.

Once started upon the gymnastic road to success, a surprisingly large number of people continue down that road for a long way. Those who reach its end find that gymnastics require a little strength, a lot of coordination, much self-confidence, and a super abundance of stick-to-it-iveness.

ALTHOUGH still a college student at the University of Illinois, Jack Miller has been specializing in balancing and gymnastics for the past seven years and is half of a professional acrobatic team known as *The Milburns*. This is his third contribution to *Scholastic Coach*. His first article "Balancing," appeared last May, and the second, "Doubles Balancing," was featured last month (January).

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By **KEN DAVIDSON**
COACH, U. S. BADMINTON TEAM

Badminton Footwork and Body Balance

IT IS impossible to play good badminton without correct footwork and proper body balance. The idea is to move the body around the court, forward or backward or sideways, so that it is possible to hit the shuttle freely with the maximum amount of power and control with the minimum amount of effort.

The ideal situation is to have the full weight of the body available to put behind the hit. Quickness of starting and turning is of more importance than sheer straight-away speed, although both are desirable. The quicker you move into position, the more time is left for the actual stroking of the shuttle—a basic thought many tournament players forget.

The aim of beginners should be to move with ease and grace, gliding silently about the court with no apparent effort. Body and muscle relaxation—with firmness, not tenseness—is the keynote to rhythmic stroking.

First of all, be on the alert. Never slump back on your heels at any time, either during a rally or just before it starts. This does not necessarily mean your heels must be raised off the floor at all times, but rather that the balance of weight is carried forward on the ball of the feet rather than backward on the heels.

Be in an active starting position, prepared to move in any direction. Keep the feet a few inches apart with the body leaning a little forward on slightly bent knees and balanced on the ball of each foot.

Author Davidson hitting a low backhand drive in the first match ever televised. Note how racket is kept back and how, at contact, arm and racket form a straight line. Weight is transferred from back (left) to front foot, with arm and shoulder kept clear from body to allow a free, rhythmic swing.

A finer point of balance may be achieved by an almost imperceptible springy leg motion. This is more or less an up-and-down knee movement with either foot being constantly ready to apply the pressure which quickly starts the body moving in any desired direction.

Experienced players start the upward lift of the knee movement at the exact moment the opponent strikes the shuttle, thereby being on the move before the shuttle has traveled more than a few inches from the opponent's racket.

Do not start for a particular spot before the shuttle is actually hit (you break the rules if you do so when receiving a serve) unless you are certain you know where your opponent's return will arrive. Otherwise you can be caught going in the wrong direction by a clever opponent.

In play, of course, there will be occasions when you are drawn out of position and have to anticipate where the shuttle will be returned. In these cases, hurry back to position as much as possible; then, just as your opponent prepares to hit the shuttle, pause to get your body balanced in the active stroking position so that you can turn your body toward the shuttle no matter where your opponent hits it.

In more desperate straits, you may have to commit yourself and guess where the shuttle will be, choosing one of two or three places. It is better to pick one and hope you are right than not attempt to make any return.

Let us assume the shuttle is in the easiest of positions to hit—ahead of the body at racket-and-arm length away, with only the minimum of foot and body movement required.

As you prepare to make the return, one side of the body must be turned sideways toward the oncoming shuttle.

(Continued on page 18)

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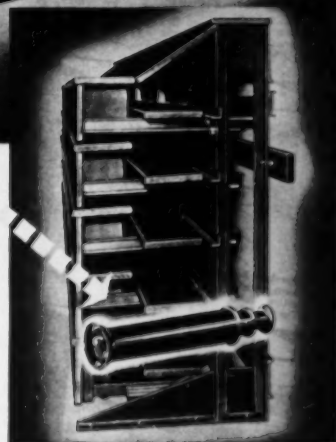


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Basically, for all forehand strokes, the LEFT foot should be ahead of or across the right foot. This means the left side of the body will turn sideways to the net and the left shoulder will come around toward the shuttle for the commencement of the forward swing.

On backhand strokes, the RIGHT foot must be ahead of or across the left foot. This turns the right side of the body sideways to the net and brings the right shoulder around toward the shuttle for the commencement of the forward swing.

An easy test is to try a backhand with the left foot and shoulder ahead—note how the body blocks the freedom of the swing of the arm and racket.

The bringing around of the shoulder allows a full swing of the arm and is more pronounced on backhand than on forehand strokes because the arm and racket must cross over in front of the body to get back in readiness for the forward swing.

On forehand strokes the arm and racket are already on the hitting side of the body and ready for the forward swing. It stands to reason that the arm and racket must be back before they can go forward to hit the shuttle, hence the importance of bringing the shoulder around in proper alignment, particularly on all backhand strokes requiring a vigorous swing of the arm and racket.

The more you allow the shuttle to pass your body before hitting it, the more will be the turning of the shoulder and the body away from the net. Always move forward to meet the shuttle ahead of the body whenever practical.

The more the body and shoulder have to be turned away from the net, the more the front foot will point to the sidelines as it takes its place in preparation for the stroke, and, in extreme cases where the shuttle has got way past you in the deep backcourt, the front foot will be facing the backline.

For a normal forehand shot hit ahead of the body, the back foot (the right) will be pointing to the right sideline and, in reverse, for normal backhand shots the left foot (the back foot) will be pointing toward the left sideline.

To insure maximum power, it is absolutely essential that the body weight be smoothly transferred from the back foot to the front foot. At the moment of impact, the body, leaning forward a little toward the shuttle, is perfectly balanced on the front foot; with the toe of the back foot about to leave the floor.

The body continues on (follow-through) in the direction of the hit,

THE most versatile badminton pro extant, Ken Davidson has starred on stage, screen, television, and lecture platform, and—last year—served as coach and manager of the first U. S. badminton team that toured Britain for the Thomas Cup International Championships and the All-England Tournament. Mr. Davidson is also the badminton-equipment supervisor for the General Sportcraft Co. and author of several texts. His article appeared originally in "Bird Chatter," the official badminton magazine, and is reprinted here with the permission of Mr. Davidson and editor Robert Kildall.

with the back foot passing the original front foot to catch and keep the body balanced on the ball of both feet ready to start toward the next stroke.

Where it is not necessary to take a full swing, the back foot may not go past the front foot but only come level to it. But even on the most delicate of net shots, the body weight must be eased forward from the back foot to the front foot.

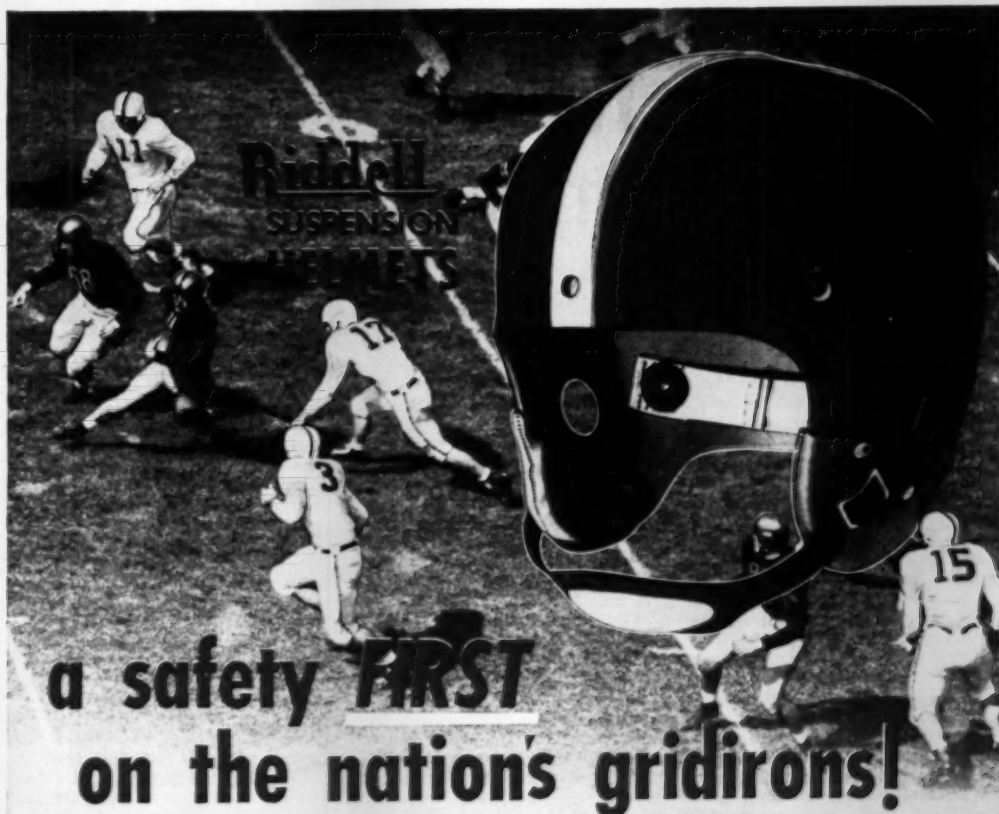
The most common fault of the beginner is to stand flat-footed and attempt to play a stroke with the body and feet turned squarely to the net. Many seasoned players, instead of allowing the weight to go forward into the stroke, brace themselves against a rigid front leg and fall away from the shuttle as it is being hit, thereby wondering why they are getting no power into their shots.

It will be noticed—more so in power shots—that, as the weight of the body moves forward from the back foot to the front foot, the body will also turn as the result of the hitting arm coming forward with the racket. The continuation of this turn on past the follow-through will materially help the body, especially on shots played near the side-lines, keep on the move to get in position for the next shot.

This is an important factor—keep on the move throughout the full length of the rally. Too many players stop after playing their stroke and forget to get back into the best position to await the next return.

Full use of the reach will cut down on the amount of footwork. An average person can, by facing directly toward the side of the court and starting with the rear foot on the center service line, take one stride, reach out and cover more

(Continued on page 52)



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Right Training for the Right Man

By W. HAROLD O'CONNOR
CONCORD (MASS.) HIGH SCHOOL



WITH good material always at a premium, it is extremely important for the track coach to place his boys in the events for which they are best qualified. The fewer the candidates, the more important it is to squeeze the best possible performance out of them.

A testing program may show the coach his leading prospects for the hurdles, the high jump, the shot, or the distance runs. But this is only the first step toward success. The good boy in the wrong event may struggle through with some success. But the good boy, even in the right event, needs careful direction to achieve peak performance.

For every beginning coach who is uncertain about the event in which to place a boy, there is a score who are uncertain about how to prepare him for a peak performance after placing him.

Most of us veteran coaches fit into the latter category, too. Even after years of coaching we are still going to clinics, reading articles, button-holing the mentors of new stars; all in the hope of finding that one sure-fire training secret that will insure yearly success. We live in hope of the panacea, but we know well that there is none.

Perhaps you have seen a hundred training schedules for the same event. Some are so vastly different that they make you wonder whether they apply to the event in question.

"How shall I develop my starting miler?" you ask. "How can I get the best performance from my hurdler?" says another. "Do you think my quarter-miler has reached his limit?" says still a third.

I, too, have asked the same questions, but I have learned that there is no general answer to such specific questions. No coach who has not seen your boy perform can give you a schedule that will bring him to his peak . . . unless he does it by pure accident.

Whenever a coach asks me to give him a training schedule for quarter-milers, I am always tempted to ask, "What kind of quarter-milers?"

Do you realize that every quarter-miler is different? They have only two things in common: *speed and ability to carry speed over distance*. If I gave you a basic schedule for quarter-milers, it might be a laugh to one and a load to another.

Furthermore, all that is true of the schedule for the quarter-miler is just as true of the general schedule for any other event. The only man who can make out a training program for your boy is *you*.

No matter how great the coach, he cannot take a glance at your boy and tell you what you must do to make him a champion. He can point out flaws. He can suggest changes in form. He can advise exercises, give training hints.

But he cannot set up that boy's training program for you. Only you can do that, and if you are not careful you can be wrong too.

Does this mean that you must go blindly along, hoping to hit the right solutions? Does it mean that you must learn by your own mistakes?

BASIC TRAINING FACTS

I used to think so, but I don't any longer. There are some basic facts that can guide you in setting up a training schedule with reasonable assurance of gradual improvement. You can tell pretty definitely the limits of your boy at any given time.

First, let's consider your sprinters. You have settled upon your prospects, but there are only two with real promise. One of them is short, big-muscled, a driver. The other is tall, long-muscled, a floater. Should you treat those boys as "sprinters," set up the same training plan for both, and sit back to await top per-

formances? You may sit back, but I'm convinced that you won't get the best results from either one or the other.

Several years ago I heard a good track coach give his ideas on that point. Warren Howe, of Moses Brown School, described these types as *power runners* and *floaters*. He was strong in his belief that they should not be trained alike. I agree most heartily.

Take a look at your sprinters in action. Does your sprinter run with an appearance of all-out effort? Does he look as though he is putting every ounce of strength into his every step? Does he come at you with a sound of pounding feet?

That boy is a power runner. Don't waste time trying to make him look pretty. He never will. In training that boy you must concentrate on arm and leg drive from start to finish of his sprint.

Don't let his powerful looking muscles fool you either. Force him to warm up carefully and well. He is very susceptible to pulled muscles. When you set up his training schedule, be sure to include plenty of work on knee lift and good forward body lean.

Don't give this boy too many short starts in an afternoon, and don't let him shirk on over-distance work (about 150 yards for a 100 yarder, and from 250 to 300 yards for the 220 man). Have him run these distances at a speed which you can describe as "as fast as you sprint without making a top effort."

This type of runner can stand a rugged work program, but watch him toward the end of the season. Have him do most of his sprinting on grass, if possible, for he has a strong tendency to contract shin splints.

Now what about the tall floater? Shall we work on him the same way? If we do, I am sure we will

(Continued on page 22)

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spoil him. Take a close look at this boy in action and you will notice that he runs almost effortlessly. He never appears to be trying.

Indeed, you find yourself thinking, what a runner he would be if he only gave out like my other sprinter. He skims the ground, runs almost soundlessly, and even seems to have a slight backward lean when travelling at full speed.

Note well that this boy seems to reach out ahead with long strides and practically pulls his body forward, whereas the power runner pushes his body ahead.

If you try to give him the same training as your first boy, you will crack his form wide open. Your floater must be taught to get into full stride as rapidly as possible. He must be taught to reach. Above all, work with this boy to keep him relaxed.

That lack of effort is entirely deceptive. The boy cannot look like your power runner and get maximum speed. Under no circumstances try to teach this boy that driving effort of your power runner. Work most on his starts: Aim to get him into full stride within the first few yards of his race.

The two runners described above are actually the types I now have sprinting for me. Both started for me last year. After the testing, I worked with my power runner stressing the things mentioned and brought him from 11 seconds to 10.4. He will not get much lower.

My second sprinter, a freshman of the floater type, went from 11 seconds to 10.6. I saw him as a fine 220 prospect, but kept him in the 100 because he was only 14 years old. Before he graduates, I believe he will be a state champion at the 220 or at the 300 indoors.

His speed had not been recognized by the other coaches until revealed by my tests. Since he is still young, I cannot push him the way I do my more mature boys. Keep the ages of your boys in mind as you map out their work-outs.

Next, let's consider your hurdlers. How much work should you give them? If they are high hurdlers, give them plenty of work over one, two, and three hurdles, and a lot of work starting with your sprinters.

Watch them to prevent their chopping their first strides. Remember, that until your boy reaches the first hurdle, he is a sprinter. He becomes a hurdler only when he reaches that first barrier and only then does his hurdling form enter the picture.

Have you ever wondered how much you can hope to cut your hur-

ONE of the most astute school-boy track coaches in America and a Scholastic Coach contributor of long standing, W. Harold O'Connor coaches the fine track teams at Concord (Mass.) High School. His current article is an offshoot of a previous piece, "The Right Man for the Right Event," which appeared in the February 1949 issue of Scholastic Coach.

dler's time by good coaching and plain hard work? You will do well to remember that the average high school boy can run the 220 low hurdles about 2.5 seconds slower than his best 220 sprint. By hard, painstaking work, he may get that down to about 2.2.

This means that if your boy can't break 24 seconds for his 220 sprint, he is approaching his absolute limit when you get him down to 26.5 for the 220 lows.

To lower that boy's time, you must speed up his sprinting. If that can't be done, your boy has reached his limit as a hurdler. Occasionally he may come out of his marks fast and turn in a 26.3 time, but don't look for miracles.

When we come to the high hurdles, form becomes more important. Here again there is that all-out sprint for the first hurdle. But since there are fewer sprint steps between hurdles, your coaching results should show more. You might be interested in some results of a series of flights by Dillard in a meet a year or so ago. These were run the same night indoors.

40-Yard High Hurdles	5 sec.
50-Yard High Hurdles	6.1 sec.
60-Yard High Hurdles	7.2 sec.

On another occasion he ran the following times:

60-Yard Low Hurdles	6.8 sec.
60-Yard High Hurdles	7.5 sec.

Even Dillard's great speed pays off better in the lows than in the highs. This means that you can achieve better results with good coaching of form in the high hurdles. Your boy may never become a national champ if his speed is limited, but your coaching of good form will offset his lack of speed more in the highs than in the lows. A boy who can do the 100 in 10.5, can, if tall, be made into a 15 second or better hurdler.

In attempting to improve your hurdler's time, keep these points in mind. If your boy is hitting his
(Continued on page 59)

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Meat for your Track Meet

WHY does a sport with such basic appeal as track continue to fare so poorly at the gate? The answer is not hard to find. The fact is that most track meets are poorly and tastelessly planned, and sloppily administered.

What's more, as long as the prearrangements continue to lack ingenuity and systemization, track meets will never draw good audiences.

In the coach of the home team to blame for a poorly conducted meet? My answer is NO. The average schoolboy coach is burdened with too many responsibilities. In addition to coaching a squad of 60 boys, he is also expected to be the field custodian and general manager of all his home meets.

This is far too much of a burden to place on one man. The result is inevitable. Trying to do too many things at one time, he winds up doing a proficient job of none.

The duties of a coach should be restricted primarily to coaching. During a meet he should be free of all other details except those connected with the performance of his squad.

The duties of maintaining the track and of making preparations for the home meets should be entrusted to a *faculty track manager* appointed by the principal.

Why not *student managers*, you may ask? The fact is that while student managers are doing a good job in many of our schools, it is always under the guidance of an older person—the coach. This responsibility could easily be turned over to the faculty track manager who, with the assistance of the student managers, could really improve on the present coach and student manager system.

After selecting a faculty member to serve as faculty manager, the principal should meet with this person and the coach for the purpose of drawing up a double-pronged working plan.

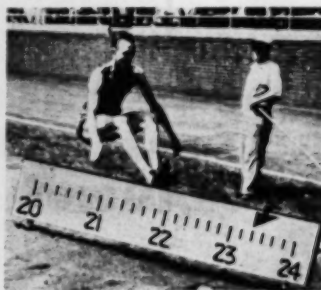
The first part of the plan should cover all phases of field upkeep for the entire practice season, and the second part should embrace the preparation and the staging of all the home meets.

The plan should cover the following details:

Daily Practice Details and Preparations for Coming Meet.

By **EMIL LAMAR**

BERKELEY (CALIF.) HIGH SCHOOL



When set up near the pits, facing the stands, these home-made, portable performance indicators help enliven the field events for both athletes and spectators.

1. Marking off the track and preparing the jumping pits.
2. Setting up a public address system and selecting a good commentator.

3. Zoning off areas on the field for non-competing athletes.

4. Setting up a scorers' station.

5. Preparing a press box for newspaper reporters.

6. Arranging dressing quarters for the visiting teams.

Working Groups

1. Hurdle crew of ten boys to move hurdles on and off the field in rapid-fire order.

2. Field crew of two to four boys to set up all field equipment, such as jumping standards, and return same after the meet.

3. Starting-blocks crew of four to

six boys to set up and adjust starting blocks for all runners.

Suggestions for Promotion of Meets.

1. Enforcing better officiating. This is easily done by distributing copies of the track and field rules to every official. Leaflets containing regulations governing the specific events to which the officials are assigned, should be given to the officials at the beginning of the season and before every championship meet.

2. Good timing. Officials who have their watches checked at the beginning of every season can usually be depended upon to furnish dependable timing. All schools should have several good watches on hand for emergencies.

3. Zones arranged in the stands for the use of Judges of Finish.

4. Instruction notices should be circulated to competitors and officials in order to keep the infield cleared as much as possible.

5. For championship affairs, it is a good idea to have several competent guards on the field to keep everyone not wearing a badge, off the track.

6. Badges for officials, managers, and coaches should be made up before every meet.

7. Contestants' numbers. A new idea in this field was devised by the writer while serving as general manager of several championship meets. The following method of numbering the competitors in the dashes, hurdles, and relay races proved very satisfactory:

Four sets of numbers from 1 to 8 were made up. These numbers referred to the running lanes, and each contestant wore the number corresponding to the lane in which he was running.

Before every race, the assistant clerk of the course, with the aid of two field officials, pinned the numbers on the runners. At the end of the race, a second group of two officials removed the numbers from the boys' backs. This system helped the Judges of Finish spot the winners more quickly.

In the relay races, the team drawing Lane No. 1 all wore No. 1 numbers on their backs, etc.

Field events can be enlivened by
(Concluded on page 53)

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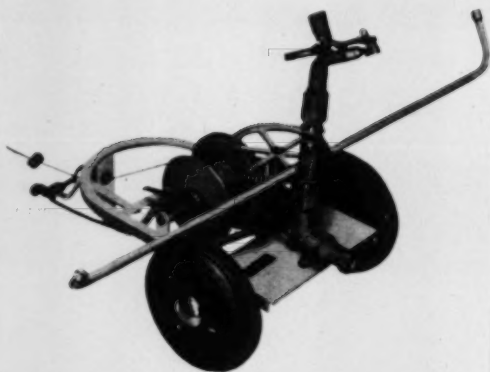
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NEW EQUIPMENT

As a service to its readers, Scholastic Coach offers this periodic round-up of new sports equipment items. For further information write to: Scholastic Coach, New Equipment Department, 7 East 12 St., New York 3, N. Y.



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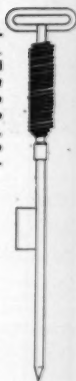


• **EQUIPMENT REPAIR KIT.** The Nutting Football Repair Kit enables coach to make on-the-spot repairs to all pads. Comes equipped with all tools and parts to replace stitching, straps, rivets, etc.



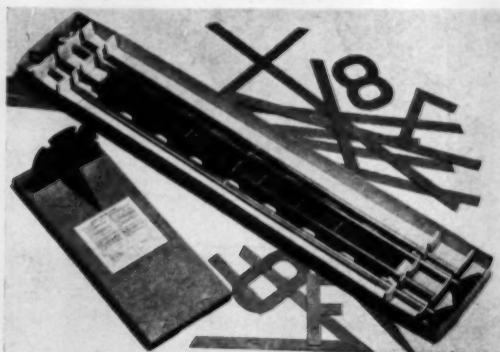
• **TROPHY PLAQUES.** Coming in shield, round, and rectangular shapes, the Bronze Fabricators line is made of American walnut with raised letter head plates. Sculptured panels and plates are made of metal with durable bronze finish, polished and treated for a rich appearance.

• **ANCHOR SPIKE.** A Saf-play Products Co. device, this spike anchors baseball bags so that it is almost impossible to injure an ankle through sliding. Through use of a spring in proper place, retraction necessary to save player's ankle or leg is obtained.



• **WET MARKER.** The only pressure marker of its kind, this Supreme Marker will operate on any surface. Sprays a line of uniform density and width; no fuzzy and ragged edges. A one-man operation, it is exceptionally fine for clay, grass, cinder track, etc.

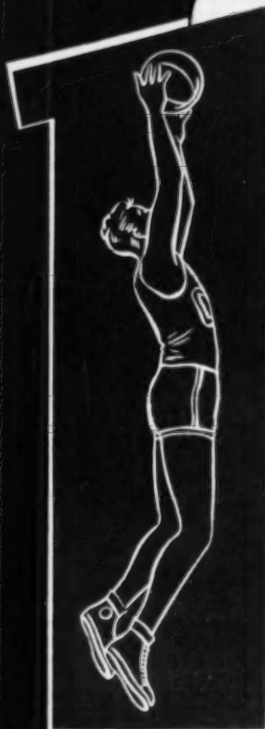
• **SHUFFLEBOARD SET.** The Hay-Wid Mfg. Co. set consists of four sturdy aluminum cues, maple disks painted in red and blue with moisture resistant lacquers, and court diagram in template form.



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Schoolboy Boxing Skills

GIVEN the same direction and supervision as the four so-called major sports, boxing has a great deal to offer the high school boy. Every nerve, muscle, and faculty is brought sharply into play, will power is developed to a high degree, and rigid discipline over the mind and body is acquired.

The ability to give and take a knock with a smile—being a good sport—is not without merit. It takes a real man to do this, and there is no other training I know of that is more conducive to self-confidence and courage.

The fundamental offensive and defensive techniques presented herein can be easily understood and learned by any high school boy and may serve as a nucleus for their training program.

HOW TO MAKE A FIST

The first thing to learn is how to clench the hand. Close your four fingers tightly, doubling the fingers into the palm of the hand, and bend the first joint of the thumb across the second bone of the first two fingers.

Always hit with the flat part of the hand. Many good hands have been ruined by carelessness or ignorance in making a fist.

ON GUARD POSITION

You need a solid, firm position which will enable you to deliver a solid blow with the proper leg leverage and yet prevent you from being knocked off-balance.

The proper positioning of the hands is doubly important. Not only does it afford a good defense against your opponent's blows, but it furnishes a base from which to launch your own offensive.

If you keep your hands too wide apart or too low, you will be much easier to hit and you will find it difficult to punch with authority. Your punches will also have to travel a greater distance and thus require more time to reach their objective. This split-second's difference may enable the opponent to beat you to the punch.

In putting up your hands, keep your elbows reasonably close to the sides of the body—just about touching. This will permit you to block almost any body blow by merely shift-

By **MARTIN N. IACOBELLI**

NEWARK (N. J.) SCHOOLS

ing the elbows to the left or right.

The left fist should be on a line with the left shoulder, directly above the advanced left foot and about eight inches away from the shoulder.

The right fist should be on a line with the jaw, about two inches to the right and forward. This will enable you to block a left hook to the head by lifting your hand straight up, or to knock down or block any straight blow by pawing at it.

Your right shoulder should be tilted downward approximately four inches with the chin tucked in against the chest, making it a more difficult target to reach. Keep your eyes trained on the opponent at all times (I prefer watching his hands).

Relaxation is of the utmost importance. Keep your arms and shoulders loose. Don't tense up except when catching a punch. Boxers who tense up tire much more quickly and cannot put that "snap" into their punches.

FOOTWORK

Bring your left foot forward a pace with the toes pointing slightly to the right. The right foot should be back about 12 inches with the toe almost on line with the left heel and the toes pointing to the right. Do not stand flat-footed. A gliding motion requires less effort than a stepping action and also enables you to move faster.

Footwork does not mean running, jumping, or hopping around. Nor does dancing or shuffling constitute "clever" footwork. Running away counts against you, and hopping or shuffling throws you off balance so that a slight blow may upset you.

There is no need to move around and use up strength and energy just for the sake of doing something. These unnecessary moves may make you appear fast, but they siphon off your stamina and eventually will slow you up.

The purpose of footwork is to lure your opponent into making false moves, to open his guard and give you a chance to score a counter. But, more important, to carry you out of danger when hurt or puzzled.

Don't ever be afraid to back away. It is always a good policy to move out of range when you are unprepared. Also, by backing away, you may lead your opponent into think-

ing you are hurt and afraid of the issue. This may cause him to become overconfident and leave himself open, giving you an opportunity to strike swiftly and hard.

THE LEFT JAB

The left jab is not a knockout blow, yet its value cannot be over-emphasized. It is used to score points, disconcert an opponent, or draw his guard down to make an opening for a heavier blow, such as a right cross or left hook.

Take the "on guard" position, then snap out your left fist, aiming for the jaw or any part of the face, turning the body slightly to get added reach and force. As you thrust with the left, bring the right hand forward and outward so that you can block your opponent's lead. This move must be done swiftly and smartly.

As the left fist strikes, or as the arm is fully extended on a line with the shoulder the fist should be brought back quickly to guard against a countering blow or to be used again as a jab. One thing to always remember is that your left jab is nearest your opponent and the blow traveling in a straight line reaches him faster than any other blow.

Do not permit your right hand to drop as you step in to jab. From the position the right hand had of guarding the jaw, bring it forward so that you can knock down or divert your opponent's lead to either side.

STRAIGHT LEFT TO BODY

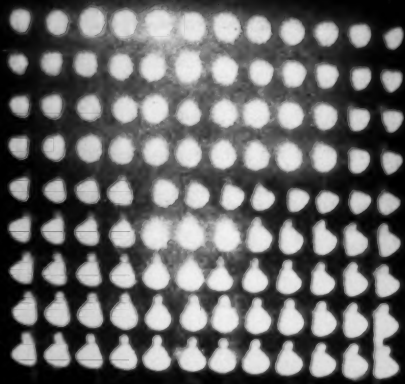
Although this is not a very effective punch as compared to others, it helps wear down your opponent. The straight left to the body is delivered practically the same as the left jab to the head, except that the body is bent a trifle to the right and the left is shot downward to the body.

THE LEFT HOOK

A hook is really a shortened swing of the arms and is used mostly as a counter-blow. That is, after feinting off the opponent's jab, you can quickly step in and hook him with your left. It can be effectively used at long range by stepping in with it and beating the opponent to the punch. Stepping in is mostly employed when the opponent tries to hit you with a swinging blow.

(Continued on page 39)

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However, it is better to concentrate on using the left hook at short range. This will prevent a tendency to pull the arm back to get more force behind it. Besides tipping off the opponent, the pull-back of the arm widens the arc of the blow and delays its delivery. The punch then ceases to be a hook; it becomes a swing. By hooking in sharply, you will find that force is almost unnecessary. Your opponent, coming in, will furnish the momentum.

Here is how to deliver the hook: Take the on-guard position. Lift the left elbow slightly and propel the fist sideways so that it describes an arc. The fist should be turned over so that the palm of the hand is parallel to the floor. The face of the fist (the four knuckles) must land fully to get the proper effect of the blow.

As you practice the hook and become accustomed to its movement, you will raise your left heel slightly and give the hip an upward and side-ward twist. This is called "leg leverage." If learned well, it will make the blow sharper and more damaging.

THE STRAIGHT RIGHT

The straight right or right cross should be used after a left lead. Remember, one of the most important rules to observe is "Never lead with your right." Since a right must travel a long distance, it will leave you wide open to a countering blow.

As in the hook, try to get a little lift of the hip and shoulder as you drive your fist out. This is done by lifting the elbow slightly as you start the punch and bringing the body forward with the move.

Get the full power of the shoulder, not just the arm, behind the punch. The fingers of the hand should be parallel with the floor as you strike so that the face of the fist (all four knuckles) will land solidly. Immediately after the blow has been delivered, snap the right hand back into its normal on guard position so that if the opponent manages a countering blow, you are in your natural position to block or parry it.

THE ONE-TWO PUNCH

The "one-two" punch is a combination of punches—the left jab and a straight right cross. They should be so combined that the two blows are executed in unison.

Take the on guard position with the right elbow slightly raised to release the tension of the muscles. Paw out your left so that your opponent is fooled into thinking it is a feint or a meaningless blow. Keep it high so that it will strike around the eyes, and then drive through with the straight right.

Don't put too much force behind the left jab because if you do you will drive your opponent's head back out of range, and consequently the right will fall short of the mark. The left

A FORMER Golden Glover out of Newark, N. J., Martin N. Iacobelli fought professionally for 18 months, then decided on a college education. He realized his ambition last June, graduating from Seton Hall College with a B.S. degree in physical education.

is really used to cover the following right cross, and if executed correctly, your opponent will hardly see the right cross coming.

The "one-two" paves the way for a knockout blow. If you connect solidly with a straight right to the body after delivering the "one-two," you will bring the guard down and then you can switch back to the head effectively. When your opponent is groggy, he will naturally drop his head on his chest and try to protect his jaw with his arms. A variation of the "one-two" punch can then be used. Use the left to tilt the head back and drive through with a straight right.

Do not use the "one-two" when your opponent is backing away. You will fall short of the mark, thus expending energy needlessly, and also will be wide open for a countering blow. When your opponent tries this punch on you, step back out of range and then come in quickly driving both hands to the body.

RIGHT AND LEFT UPPERCUT

The uppercut is really an inverted hook. That is to say, instead of bringing the punch over, it is brought upward. This blow is an inside blow and should never be used at long range. It is most effective when you are moving in to counter an overreaching jab or swing.

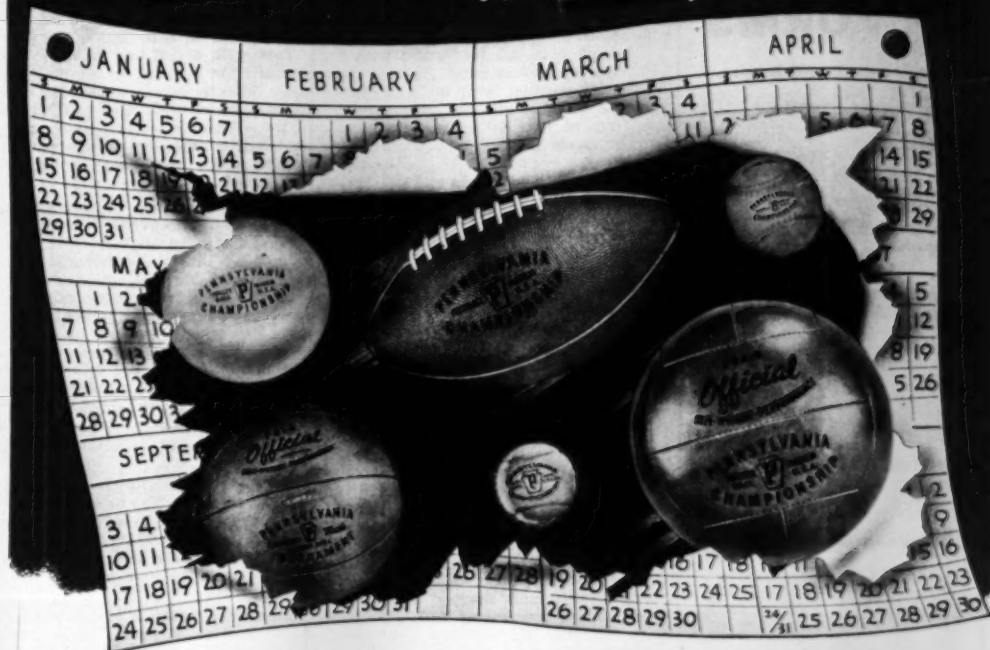
Never attempt to uppercut at long range, as the uppercut is nothing more than an upward swing and is easily knocked down, placing you in danger of a counter blow. A point well worth remembering when uppercutting is to have the other hand ready to block or parry a counter punch. Above all, don't drop your guard when starting to uppercut.

HOW TO HIT HARD

Any youngster who cannot naturally get his body into his punches may learn to do so through the system that was taught to me. Lift the right foot off the floor and stand on the left leg. Now let go with a hard right-hand punch at the heavy bag. The body, not being braced on the right side, must follow through with the punch. You will find yourself crashing full-power punches into the bag.

Alternate with left hand punches until you get the follow-through idea. After that you can stand on both feet and punch hard. You should not have

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much trouble getting the whole body into your punches. It will now be automatic.

SHADOW BOXING

Before putting on the gloves, it is always well to limber up the muscles with a few rounds of shadow boxing. This enables you to warm up the muscles, start the heart beating firmly and steadily, and practice all the actual blows and moves used during the bout.

All exercises are performed with a definite purpose in mind. Assume the on guard position. Snap out a jab just as you would if you had an opponent in front of you. Keep the right hand up on guard to ward off a countering blow.

Snap out the jab again and step forward as you do so, striking out with the right. Bring it back quickly and cover up. Step around as you would when seeking an opening. Bob your head to duck under a blow, turn a bit to the side to ward off a blow and counter with a right or left hook.

Now bring up your right foot almost on a line with the left, lower both hands and then punch away at the body. Go forward a few steps, slowly, punching away at the same time, then retreat, slowly just as you would if you were breaking ground before the onslaught of your opponent. Cover up, and then suddenly commence to move forward rapidly. This will permit you to take quick advantage of an opponent who has tired from carrying the fight to you.

Another good move is to walk around briskly, meanwhile uppercutting shortly and sharply or rolling the shoulders to give full play to the shoulder blades. This is a very beneficial exercise.

While shadow boxing, be careful about your footwork. Don't go into any fancy dance steps, jogging up and down, hopping from side to side, or other moves that you would not execute in a regular contest.

DEFENSIVE MOVES

So far we have considered a few of the fundamental blows constituting the offensive part of boxing. Now let us stress some of the defensive moves.

Clinching is a most important defensive stratagem when in trouble and will often save you from a knockout. It is used mainly when hurt, dazed, or extremely fatigued, and also when cornered by an opponent who is a better fighter.

The chief idea is to pin the opponent's arm down temporarily so that he cannot deliver any more blows. Properly executed, a clinch can help you recover your wind or strength, and also tire the opponent. Never wrestle, and do not tire yourself by pushing the opponent around. Let him do the heavy work.

When you have to clinch, step in close with your left side pressed

against the opponent. Block his right arm with your left, and make his left ineffective by forcing his arm back with your right hand. By keeping very close to him, you give him no chance for any body blows.

Another way is to wrap your arms around the opponent's forearms from the outside and force his arms close to your sides. There won't be much he can then do. Since your fists will be aimed at his stomach, you can take a couple of pokes at it when he tries to extricate himself.

This will divert his mind to his stomach for a couple of seconds and cause him to forget about his fists. It will also serve to help you get out of the clinch by putting your opponent on the defensive and permitting you to punch to his body and head, and then back away.

Ducking is the act of bending the head and body to avoid swings.

Bend the waist slightly and "lean" your head into the opponent under the coming blow. Keep one glove over the face to protect against an uppercut your opponent might attempt with his other hand, if he is fast enough. In close quarters, ducking will not only save you from swings and hooks, but will also give you the opportunity to deliver some damaging body blows, for your opponent's swinging will usually leave his body uncovered.

Rolling consists of a circular movement of the head. The head is brought down, across, brought up on the opposite side, and back to its original position. The hands are held slightly back, ready to hook as soon as there is an opening.

Slipping a punch is one of boxing's lost arts because most boxers today are offensive-minded and pay little heed to defense. Yet it is better to slip a punch than block it. The former technique always leaves the hands in position to strike, and it is always better to employ the hand for two purposes than just one.

In "slipping" a punch over the right shoulder, paving the way for a right counter, step to the left about five inches, just enough to make the blow go over the shoulder and still be in a position to land your own right.

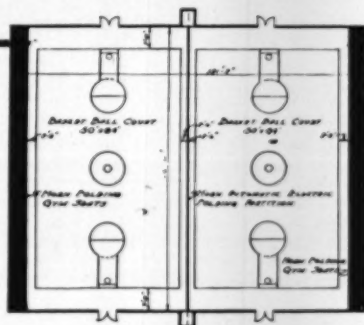
In "slipping" a punch over the left shoulder, the move is made to the right, about six inches, and the left may be hooked or shot out straight, either to the head or body, as the opening permits.

Covering up is an art in itself. The boxer who can cover up or prevent his opponent from landing a damaging blow will usually have the upper hand. A good defensive boxer is almost a rarity today because so many try to do all the punching, on the assumption that to continually lead or force the fight means the winning of the fight.

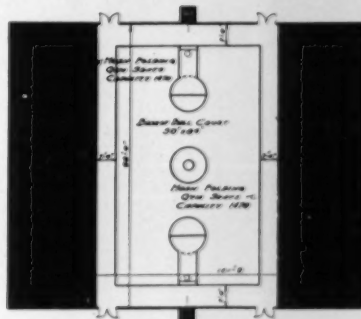
But a boxer whose leads are broken up and is set back does not accom-

(Continued on page 47)

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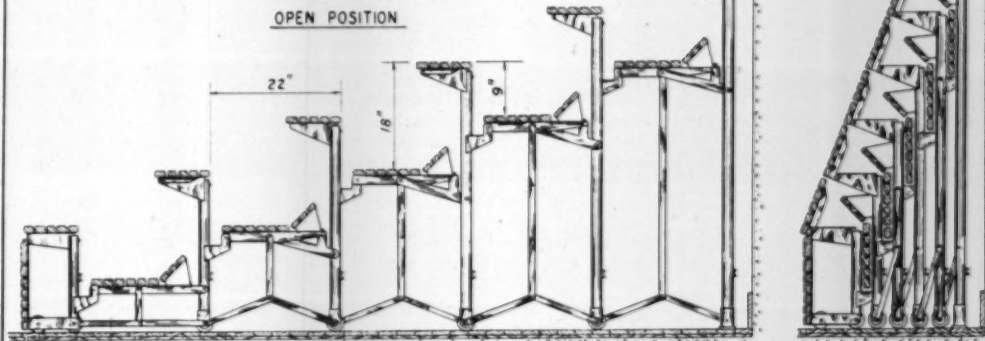
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4	6 Ft. 7 In.	2 Ft. 0 1/2 In.	3 Ft. 9 In.	13	23 Ft. 1 In.	4 Ft. 6 1/2 In.	10 Ft. 6 In.
5	8 Ft. 5 In.	2 Ft. 3 1/2 In.	4 Ft. 6 In.	14	24 Ft. 11 In.	4 Ft. 9 1/2 In.	11 Ft. 3 In.
6	10 Ft. 3 In.	2 Ft. 6 1/2 In.	5 Ft. 3 In.	15	26 Ft. 9 In.	5 Ft. 1 1/2 In.	12 Ft. 0 In.
7	12 Ft. 1 In.	2 Ft. 10 1/2 In.	6 Ft. 0 In.	16	28 Ft. 7 In.	5 Ft. 4 1/2 In.	12 Ft. 9 In.
8	13 Ft. 11 In.	3 Ft. 1 1/2 In.	6 Ft. 9 In.	17	30 Ft. 5 In.	5 Ft. 8 In.	13 Ft. 6 In.
9	15 Ft. 9 In.	3 Ft. 5 In.	7 Ft. 6 In.	18	32 Ft. 3 In.	5 Ft. 11 1/2 In.	14 Ft. 3 In.
10	17 Ft. 7 In.	3 Ft. 8 1/2 In.	8 Ft. 3 In.	19	34 Ft. 1 In.	6 Ft. 2 1/2 In.	15 Ft. 0 In.
11	19 Ft. 5 In.	3 Ft. 11 1/2 In.	9 Ft. 0 In.	20	35 Ft. 11 In.	6 Ft. 6 1/2 In.	15 Ft. 9 In.

* Dimension includes 4 1/2 in. space between top seat and wall.

** Height in open position same as closed. For Bleachers higher than 20 Rows write for complete details and dimensions.

HORN FOLDING BLEACHERS COMPANY

Finnish Javelin Throwing

(Continued from page 8)



ing up during the shift. This hesitation will defeat the purpose of the run-up. In many instances, this loss of rhythm is far more detrimental to the final throw than a much slower approach.

The rhythmic pattern of the run-up must be of a complementary nature if the run velocity, or part of it, is to be blended smoothly into the final effort. No athlete can run up to a mark or bar with a rapid dit-dit-dit-dit rhythm and suddenly change it to a slower dah-dah-dah-dah rhythm during the effort proper, and be successful.

This rhythmic timing concept, often unrecognized by athletes and coaches alike, is a fundamental and far-reaching concept. Striving for speed out of proportion to control is fallacious in all field events. It is better for the athlete to use a 2/3 or 3/4 controlled speed than the maximum speed he can achieve.

Mechanics of actual throw. The javelin is lowered, in training at least, on the count of four, so that as the left foot strikes the take-off mark the javelin is already parallel with the ground at about ear height. The subsequent lowering of the javelin (as close as possible to the body) must be nine-tenths completed by the time the right crossing foot strikes the ground.

The cross-step is effected by turning the left toe slightly toward the right of a straight ahead line and leaning backward so that the weight will fall almost entirely on the right outward turned foot after the cross-over. The length of the cross-step will vary with the height and speed of the approach, and no set standards can be set up.

The backward lean of the body is approximately 20° from the true vertical in top throwers. The trunk is not bent forward or backward at this instant. A line drawn from the outside of the right crossing foot

through the right shoulder would touch the hip bone as well. That is, a straight line from the foot through the trunk and shoulder.

Now, as the left leg is thrown forward and to the left (at about a 20° angle, or a foot to the left of a straight line), the palm of the hand is turned upward, completing the pre-throwing javelin position. The left arm, which up until this moment has been ignored, is now thrown upward to about shoulder height to stabilize the body.

Then the actual throw begins. With the left foot being solidly planted as a base of support for the throw, the head and eyes are now directed upward. Coaches should pay particular attention to the proper use of the head in coaching, particularly with respect to getting good elevation in the throws.

The body which is still riding forward from the momentum, and being resisted at its base by the left foot and propelled by the last push from the right foot, is rotated at the hips with the left hip joint acting as a fulcrum, thus bringing the right hip joint into complete extension on a line at right angles to the direction of the run.

During this rotary motion of the hips, the javelin is being pulled steadily forward, so that when the hips are aligned at right angles to the run, the right elbow will be already bent to an angle of 80-90° (the optimal flexion angle of an arm joint for power delivery) and the elbow will be directly opposite the shoulder.

The javelin path is always directed in such a manner that it passes in a line inside the elbow and as nearly over the shoulder as possible. The actual path of the javelin is a line drawn along the lower edge of the bicep muscle.

Now, with a rotation of the head to the left, a natural pulling down of the left arm to about hip height, the javelin is pull-pushed into flight at an angle from 45-50°.

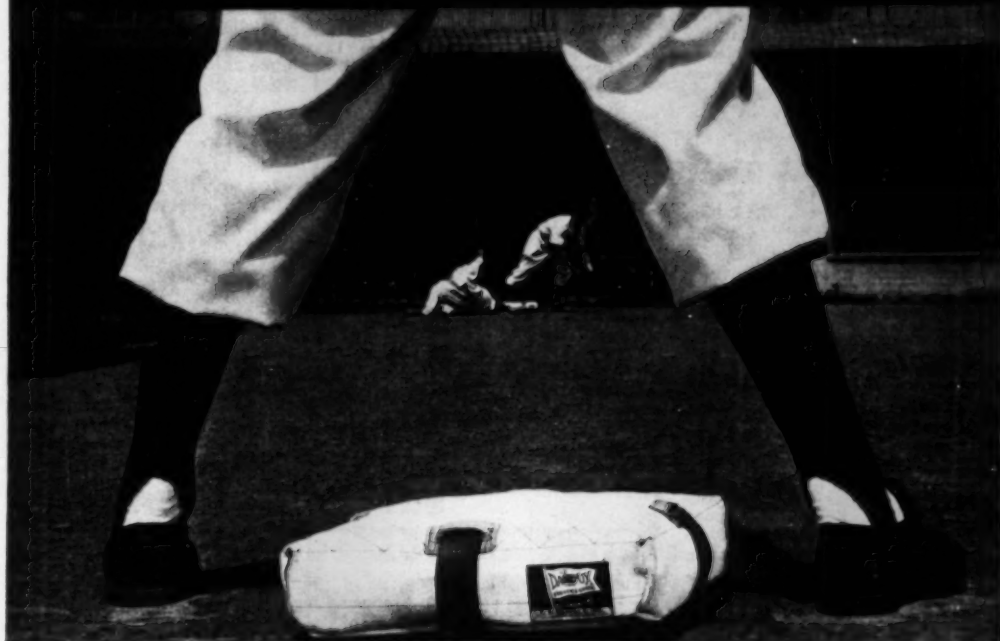
The last instant of the delivery, after the hand has passed the shoulder, is to all intents and purposes the same motion as practiced in the shot put. The javelin resists being put into motion and thus tends to hyper-extend the wrist. Hence, the final delivery of the javelin is a wrist snap, facilitated by the already moving javelin.

(Continued on page 36)

FRONT VIEW OF THROW

The plant of the left foot is particularly conspicuous when viewed from this angle. As shown in the diagram on page 8, Jarvinen throws the left foot forward and to the left at about a 20° angle, or a foot to the left of a straight line. The head and eyes are directed upward and the left arm is thrown upward to about shoulder level to stabilize the body. The javelin is pull-pushed into flight at an angle from 45-50°.

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(Continued from page 34)

The angle of delivery is of particular interest. In 15 different efforts of world ranking throwers, not once was the javelin delivered at an angle of less than 42°; and in nine throws, equally divided between Rautavaara and Jarvinen, this angle of delivery ranged from 46-50°.

The explanation for this seems to be aerodynamical in character. With the javelin's center of gravity forward of center, as soon as the javelin is released the nose tends to fall toward the ground as the forces of gravity go to work.

In order to counteract this and get peak elevation which, coupled with velocity, also gives peak distance, it is necessary to throw the javelin at such an angle that it will be parallel to the ground at its peak of elevation, as illustrated in the sketch. Any deviation from this flight plan must materially affect the path of the javelin. The optimal angle from this film data seems to be a departure angle of nearer 50° than 40°.

Any premature dropping of the javelin tip will permit the wind to exert a maximum deflecting force on its upper surface and greatly handicap the throw. European throwers on the whole tend to throw at higher angles of elevation than American throwers. This possibly explains their greater success.

Special throwing observations. The left foot must always be solidly planted throughout the throwing effort, since this is the only base of support the thrower has to rotate around and which can act as a resistance during the actual throw. Premature falling off to the left,

THIS magnificent treatise on the principles of Finnish javelin throwing represents the collaborative efforts of Matti Jarvinen—"Mr. Javelin" himself—10 times world's record holder—and Richard V. Ganslen, former N.C.A.A. pole vaulting champion, who is now one of the world's greatest track and field analysts. During the past summer, Ganslen, currently a physical education instructor at the U. of Illinois, spent three months in Finland as a guest of the Finnish Amateur Sports Assn. He worked closely with Jarvinen and the two other Finnish javelin greats—Rautavaara, Olympic champion, and Hyytinen, world champion in the making—and the fruit of their study and research is compounded into this article.

GREATEST JAVELIN RECORDS

Name	Country	Birth	Best Mark	Year	Peak Age
Nikkanen	Finland	1914	258.13	1938	23
Jarvinen	Finland	1909	253.31	1936	27
Autonen	Finland	1914	250.56	1939	25
Sule	Estonia	1911	249.05	1938	27
Seymour	U.S.A.	1921	248.72	1947	26
Mikkola	Finland	1916	248.00	1940	24
Rautavaara	Finland	1915	247.54	1945	30
Atterwall	Sweden	1911	246.32	1937	26
Hyttinen	Finland	1925	244.52	1946	20
Stock	Germany	1911	242.59	1935	24
Daleflood	Sweden	1919	242.48	1945	25
Berglund	Sweden	—	241.33	1949	—
Weinman	Germany	1907	240.75	1933	26
Ericksson	Sweden	—	240.40	1944	—
Lokajskn	Poland	—	240.12	1936	—
Varszegi	Hungary	1910	238.71	1938	28
Pettersson	Sweden	1915	238.67	1947	31
Vainio	Finland	1910	237.43	1939	28
Issak	Estonia	—	235.72	1938	—
Kiesewetter	Czechosl.	—	235.09	1947	—
Peoples	U.S.A.	1917	234.40	1939	22
Toivonen	Finland	1912	233.89	1939	26
Lundquist	Sweden	1908	233.30	1936	28
Brown	U.S.A.	—	232.65	1940	—
Held	U.S.A.	—	232.17	1949	—
Penttila	Finland	1906	231.69	1932	26
Bell	U.S.A.	—	231.56	1938	—
Sippala	Finland	1908	231.37	1934	26

Average age 25.9

sometimes traceable to poor use of the head and left arm, will produce a reactive force which, instead of being reinforced by the feet on the ground, will dissipate into the air.

The elbow is never forcibly extended behind the man prior to the start of the pull-through. Some slight elbow flexion, 15° or so, places the muscles and joints in a much better position to deliver maximum force than a fully extended arm.

The extension of the right hip and the full rotation of the trunk must be completed as soon as possible after the arm is started forward in order to give the arm and back muscles a solid support to work against in the throw itself. This rotary motion of the hips not only provides a fixed base but makes a contribution to the velocity of the arm via the shoulder.

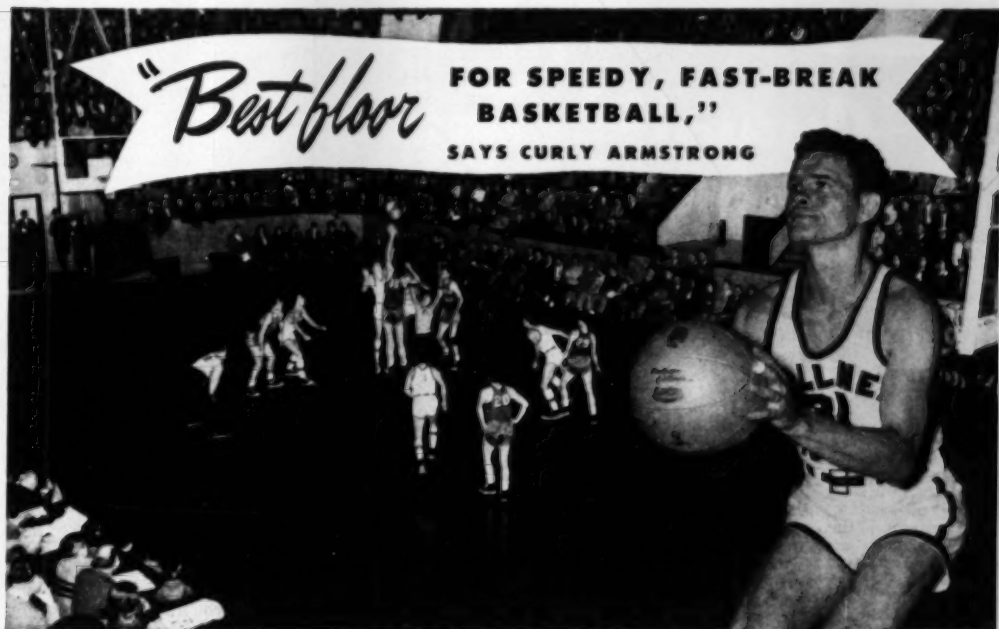
The reactive force from the arm motion against an unfixed position of the hips would have little effect other than slowing the forward motion of the body. The purpose of the whole motion here is not to stop the forward motion of the body, but rather to pivot around the left leg and hip joint and follow the motion started in the run, right through to the takeoff board as the thrower falls forward; and catches

himself on the crossed-over right leg.

The major faults of most throwers may be listed as follows:

1. Throwing only with the arm, as in football, and not fully exploiting the back and leg drive.
2. Running into the shift stiff-legged and being unable to drive during the throw, having no relaxed joints to extend.
3. Tending to lean into the throw too early; the athlete must not lean before the third step.
4. Pulling the javelin down too far from the body in a mechanically unsound position to deliver power. Since a javelin weighs 1¾ pounds, it cannot be thrown like a baseball without serious consequences.
5. Spending too much time throwing and not building up muscles and legs enough to derive maximum power delivery.
6. Approaching too fast and not being able to control speed in the shift.
7. A tendency to throw with a jump and lack of leg drive.
8. Delivering javelin prior to hip extension (typical American fault), exerting arm force with inadequate support of the trunk, thus dissipating

(Continued on page 46)



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HIT from four sides simultaneously, the ball-carrier soared into the air, turned over three times, struck the ground, and lay still. Everybody in the stands gasped. It looked like a sure fatality. The priest sitting on the bench rushed out, knelt by the boy, and started administering last rites.

In the middle of the service, the boy feebly opened an eye. He looked at the priest and, with great pain, slowly shook his head. "Stop, Father," he gasped. "You've made a mistake. I want the priest for the offensive platoon."

One afternoon, Frenchy Bordagaray spoiled a promising Brooklyn rally by being caught off second base. As the player returned to the bench, Manager Casey Stengel blew his top. "What's the matter with you, you big dope. Did you fall asleep? What happened?"

"Gee, Casey," replied Bordagaray. "There I was standing on the bag tapping the base with my foot, and I'll be darned if they didn't get me between taps."

After a tough game against Georgia, Charley Justice was invited to a dance at an exclusive country club. He soon found himself tripping the light fantastic with a cute little thing whom he had not met formally. Rather contritely he said, "I'm afraid my dancing isn't very good this evening. I'm a little stiff from football."

"I think you're very nice," retorted the fluff warmly, "and it doesn't make the least difference to me where you come from!"

In last month's issue, Don Richardson, of Clare (Mich.) High School, wanted to know whether any high school back last season surpassed the performance turned in by one of his backs who carried the ball 11 times for a 23-yard average and scored four touchdowns. Irv Kintisch, coach at New Utrecht High (Brooklyn, N. Y.),

can top that. Against Manual Training, his tailback, Dan Spensieri, operating out of a single wing, gained 350 yards and tallied four times on runs of 70, 68, 40, and 38 yards.

"Another oddity of the game," writes Kintisch, "was that New Utrecht once found itself deep in its own territory with third down and 75 yards to go, the result of four consecutive 15-yard penalties. P. S. Spensieri did not rise to the occasion and score a touchdown for us."

The great Sam Langford kayoed the Dixie Kid twice with terrific body punches. After the Kid was revived the second time, he whined, "Why you always go for my body, Sam? Why you don't go for my head?" "Yo' head's got eyes," snapped Sam.

Those pros are getting better and better at those points after touch-down. Joe Vetrano, of the San Francisco 49ers, wound up the season with a record of 107 in a row, while Harvey Johnson, of the Yankees, was close behind with 103. Two other long strings came to an end when Cliff Patton, of the Philadelphia Eagles, missed his 85th try, and Pat Harder, of the Chicago Cardinals, flubbed his 82nd attempt.

Vetrano, incidentally, has scored in every one of the 56 games played by the 49ers over the past four years.

Bashing baseballs has become a nifty little business. Last year Joe DiMaggio got paid \$367 for every turn at bat and \$1,064 for every hit. (Figure it out for yourself—he came up just 272 times, got 94 hits, and was paid \$100,000.) Most high school coaches have to work a whole year for that sort of dough.

A race track tout, down on his luck, was tapped on the shoulder by a well-dressed stranger. "I have an extra clubhouse ticket," he said. "Would you like to be my guest?" Soon as they were comfortably seated, the tout went to work. "I have a red hot tip in the first race," he whispered, "it can't miss. If you'll put down a

few bucks for me when you place your own bet, I'll be glad to give you this sure thing."

The stranger agreed with enthusiasm. He bet a thousand dollars for himself and a hundred for the tout. The horse ran out of the money. The tout went to work again. Eight times during the afternoon, he passed along "sure things" to the stranger. Each time the stranger wagered a thousand for himself and a hundred for the tout—and each time the horse lost.

After the last race, the stranger invited the tout to dinner. "You've had a bad day," he sympathized, "so please accept my hospitality and tomorrow we'll come back and try again." The staggered tout accepted the invitation and had a big evening on the stranger. On the way home he ran into an old friend and spilled the whole story. "Just think of it," he said, "the guy blows eight thousand clams for himself and eight hundred for me, and he still wants me to go back and try again tomorrow."

"Brother," said the tout's friend, "ditch that guy. He's hard luck."

A female golfer was having a bad time. After flubbing an easy shot, she turned angrily on her snickering caddy. "If you don't stop that," she screeched, "you'll drive me out of my mind!"

"That wouldn't be no drive," answered the boy, "only a putt."

"I've been reading some of the junior high school track records you've been publishing," writes Coach Charles Wild, of Lincoln Jr. H.S., Rockford, Ill., "and would like some of the coaches to take a look at Rockford's marks:

100—10.2	Shot (8 lb.)—53-6
220—22.7	Discus (h.s.)—118-6½
440—54.5	Broad jump—21-3
880—2:04.5	High jump—5-9
110 Lh.—13.2	880 relay—1:40.2

Latest open-huddle communique, this one from Al Bricker, coach at Magnolia (Ohio) High: "The various coaches attempting to gain credit for first using the open huddle haven't come close to tracing it back to the year of its birth. Floyd Eby takes it back to 1946, while Vic Obeck claims he used it at Akron before the war."

"Well, I saw Bellaire (Ohio) High use the huddle back in 1936 or '37—with the center calling signals. Ever since I have always favored the open huddle over the closed huddle."

Thanks for the note, Al. But a previous letter from Fred Lort, of Upper Darby (Pa.) High, traced the open huddle all the way back to Voss Miller at Franklin and Marshall in 1930. (See *Here Below* editorial on page 58 of January issue.)

The Scott Senior High School of Coatesville, Pa., has lined up a terrific slate of lecturers for its third annual coaches clinic on March 13-16. Look at the talent it has corralled—Bernie Bierman, Wes Fesler, Frank

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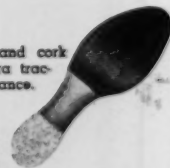


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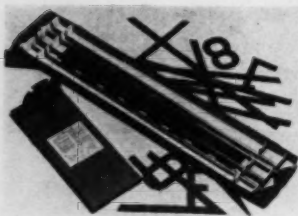
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Leahy, George James, Tom Hamilton, Walter Milligan, Al Wistert (Philadelphia Eagles), Charles Mather (Massillon H.S.), and Dick Humbert (Philadelphia Eagles). The clinic shapes up as a humdinger; for further information write: Harry G. Scott, Director, Football Coaches Clinic, Scott Senior High School, Coatesville, Pa.

One of the most unusual friendships in sport is that between Sid Luckman, the great quarterback of the Chicago Bears, and Sister Mary William, an elderly nun on the staff of St. Mary's Hospital in Rochester, Minn. Sid met her when he was operated on for a serious throat ailment last winter.

"So help me," he says, "she means more to me now than anybody in the world outside of my wife and my mother and my family. What a wonderful person! She'd come to see me all the time before the operation and after. She sat and held my hand all during the operation, when they cut into my throat. She took care of me as if I were her son. I'll never forget the way she talked to me. You know, about people and about life, and about God.

"The day Eddie Waitkus—a good friend of mine—got shot, I told Sister Mary about it and she took me down to a little chapel in the hospital. And we prayed for a whole hour for Eddie, that he wouldn't die and that he'd be able to play ball again."

There's a scene that's real All-American—the big, strong, Jewish boy from the streets of Brooklyn kneeling at the altar rail next to the frail, black-habited nun, praying together for a ball player's life.

Every once in a while we've attempted to take some of the wind out of Bill Stern's sails. But it's been like tossing a peanut shell at a hurricane. Brother Bill blows up such a tempest of buncombe that it seems almost futile to beat your head against it. So it was with great glee that we tripped across this beautiful job of character assassination in John Crosby's wonderful radio column:

Over the years, Bill Stern has created his own little world of sportsdom, where every man is a Frank Merriwell, every touchdown an epic feat of arms, and coincidence stretches like a rubber band to fit every conceivable situation.

You can start an argument in any saloon where sportswriters congregate by picking out any Stern story as the weirdest he has ever told. Stern has told so many fantastic yarns that it's pretty hard to pin down any one of them as deserving the superlative.

However, there is one story that bobs up more often than any other, the Stern version of Abraham Lincoln's dying words. As the great emancipator lay dying, Stern related, he sent for General Abner Doubleday, the man who is supposed to have invented baseball.

"Keep baseball alive," said the dying President to Doubleday. "In the

trying days ahead, the country will need it." And he fell back on the pillow and expired.

Whether or not this deserves the accolade as the most flabbergasting story Stern ever told, it is typical of all of them. It links a great name and a historic occasion with a sport. And it is totally true. (Lincoln never regained consciousness, as every school child knows.) The Lincoln tale is also illustrative of the Stern philosophy that every American worthy of the name puts sports ahead of all other considerations, including the Civil War.

There is hardly an American of renown who has not been thrust by Stern, completely unsupported by the facts, onto a football field, a baseball diamond, a prize ring or a tennis court. Thomas Alva Edison, for example, would have been greatly surprised to hear that his deafness was the result of a pitched ball that hit him in the head when he was a semi-pro ballplayer, which he never was. (Edison's deafness is pretty generally attributed to a conductor who boxed his ears when he was a candy butcher on trains as a boy.) The pitcher who threw that ball, according to Stern, was Jesse James.

Stern's method of delivering these whoppers is in many ways even more startling than the stories. He tells them in short, declarative sentences, bristling with exclamation points. After every other sentence or so, a studio organ delivers what in radio parlance is known as a "sting," a chord or series of chords which are the closest musical equivalent to an elevated eyebrow. Stern generally keeps the name of his hero a secret until the very last line and then reveals him by means of a sentence that has become a Bill Stern trademark: "And that man was ——" Then the name.

One of Stern's former writers has confessed that he frequently left the last part blank to be filled in at the last moment by whoever happened to be prominent in the news—General Eisenhower, Jackie Robinson, the late President Roosevelt, any one at all.

Ed Ellis, football coach at Wyandotte High, Kansas City, Kan., tells about the basketball coach who assigned his star defensive man to the high-scoring ace of the opponents. Just before the half, the defensive star passed by the bench and told his coach to take him out. He explained: "That guy is throwing everything into the basket and I'm afraid he's going to throw me in, next!"

Another Ellis tale concerns the two ladies who attended the Xmas tournament in Terre Haute, Ind. Knowing little about the game or the teams, they contented themselves with chit-chat about hats, gossip, and other trivia.

As the crowd let loose a roar, one of the ladies asked her friend, "What teams are playing?"

The friend looked up at the scoreboard and saw "MIN." and "SEC." That was all she needed. "Minnesota is one of the teams," she said, "but I don't know who S-E-C is."

The game, incidentally, was between Warrensburg Teachers (Mo.) and Franklin College (Ind.).

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cause "coffee nerves," indigestion, sleepless nights.

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Cornelius Warmerdam, world champion pole vaulter, now track coach at Fresno State College, says:

"Pole vaulting, like most other events, takes IRON NERVES. But I found out back in high school that I'm a caffeine-susceptible... caffeine in coffee ruins my sleep and gives me 'coffee nerves.' So I switched to 100% caffeine-free POSTUM for my hot mealtime drink. It helps in keeping IRON NERVES."



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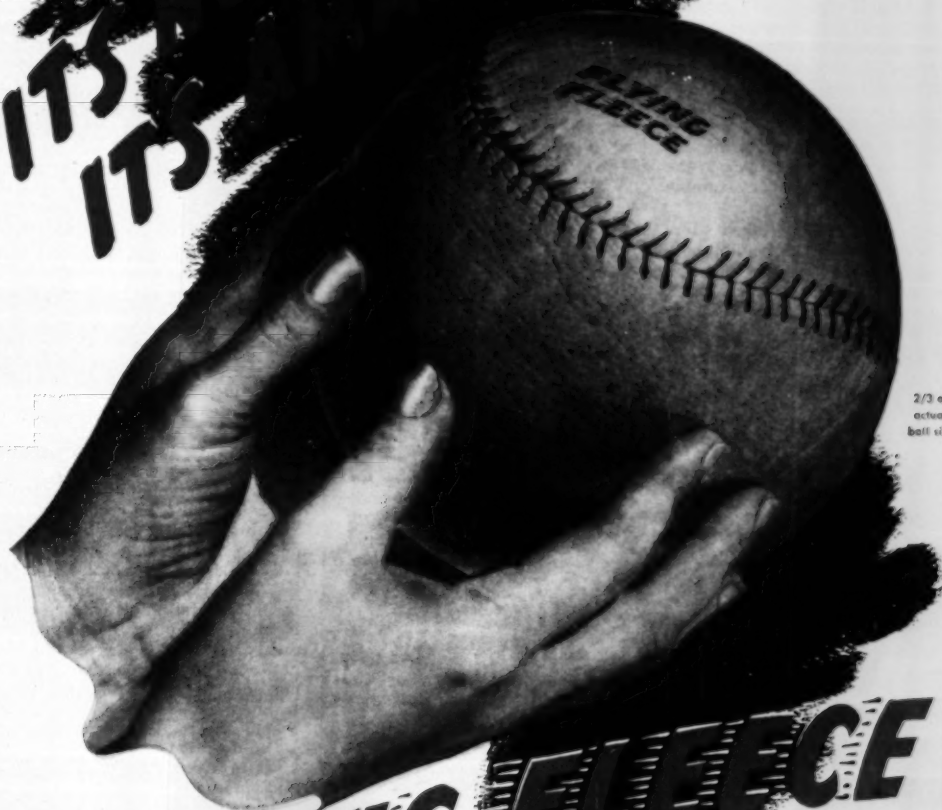
BILL DAYTON—Tulane trainer who keeps big stars in top shape, says: "Star athletes find POSTUM the ideal training table drink. POSTUM is 100% caffeine-free—can't cause 'coffee nerves.' And its hearty, grain-rich flavor makes it a favorite!"



ROLLIE SEVAN—trainer of famous West Point athletes, says: "For record-breaking performances an athlete needs IRON NERVES! So it's smart to take no chances on 'coffee-nerves.' Caffein-free POSTUM is my recommendation to athletes for a hot mealtime drink."

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of the great English amateur runner, Arthur Newton, who from 1923 to 1935 averaged 20 miles per day on a 365 day per year basis.

"Running faster" can hardly be called original, for E. C. Hayes, of Indiana, whose death in 1944 was a great loss to American running, was coaching this repeated speed work over 15 years ago. The old timers speak of taking "ins and outs," while present American custom is to speak of wind sprints, or of repeated 220's or 440's. Endless or repeated relays in which the last runner passes the baton back to the lead-off man are another example of this type of running.

"Don't get tired," if taken literally, would of course be not only new, but impossible. The expres-

sion is Corder Nelson's own invention, I believe, derived from his misunderstanding of both the complex nature of fatigue and the intelligence of American coaching. He does admit that:

"Don't get tired" is not exactly true. Runners using Fartlek do get tired. But when they reach that point they ease up. To press themselves more would be to tear down all they have been building up. In the American method, however, you are told to run a certain distance at a certain speed, and for most runners, it is a maximum effort three times a week—tearing down each day. The Swedes run hard only three times a month.

Speed-Play Distance Training

(Continued from page 7)

In contrast, the chief proponent of Fartlek, Holmer, states that Fartlek "might open the eyes of American runners and teach them that the road to success is WORK, hard work!"

The true explanation of the expression, "don't get tired," is to be found in Fred Wilt's statement that Fartlek is "physically and mentally refreshing." That is to say, in activities which are mentally refreshing or devoid of mental strain, we are likely to ignore and be unconscious of the physical fatigue involved.

The pleasure derived from alternate walking, jogging, and sprinting on woods and field paths during a 90 to 120 minute period is apt to disguise the unquestionable fact that much work has been done which must have been truly physically fatiguing.

The athlete is on his own. Decisions as to when to walk or when to sprint are self-imposed, without the pressure of the coach's presence to raise mentally fatiguing tensions or fear of failure.

There can be no question but that the Fartlek schedule as suggested by either Nelson, Holmer, or Wilt is more fatiguing than that commonly followed by American runners. And that is good; for, after all, one of the primary purposes of training is to build up resistance to the toxic products of fatigue.

On the other hand, Fartlek does seem to avoid the fatiguing mental and emotional strain of running day after day on the same track, in conscious competition with men who are usually trying to outdo each other under the critical eye of the coach. And that is also good.

However, it is essential to remember that most American college runners are still boys who are usually quite incapable of distinguishing between the feelings of fatigue and its actuality and who, therefore, will cry "Enough" long before the greatest practice benefits have been derived.

How can the necessary mental resistance or toughness against the feelings of fatigue be acquired unless one ignores these feelings and keeps running or even sprinting? How can physical endurance itself be acquired except by demanding farther and faster performances than a program of mentally and physically refreshing "play with speed" is likely to produce?

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To continue to run when either just feeling or actually being tired is not a "tearing" down process, as Nelson suggests. On the contrary, if intelligently conducted, it is the only means of building up the heart, lungs, circulation, and efficiency of action.

To be more and more active is to create fatigue; fatigue becomes a challenge to the entire mental and physical system to prevent or delay its onset, and to nullify its immediate effects and to hasten recovery. Only by creating fatigue can we resist or overcome it.

The key to the entire problem lies in the phrase, "intelligently conducted." We cannot assume that the average high school or college runner has the understanding or experience to take on such a responsibility. He will always need the advice and careful supervision of the coach, such as can occur only within the limited areas of our indoor and outdoor tracks.

MOTIVATION NEEDED

It would be ideal for a boy to learn, through his own initiative, that he can and should run faster when he feels tired. On the other hand, our record books teem with the names of those who had to be encouraged, challenged, pushed, even coerced into doing better than they thought they could do.

Hence, even the most enthusiastic exponents of *Fartlek* among American coaches will probably want to continue the practice of gathering their boys at least once a week on the track, for a look at them through both their stopwatch and their kind but demanding eye.

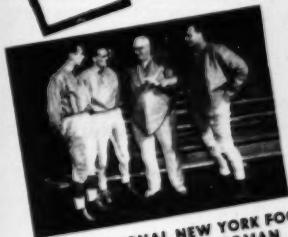
In summary, *Fartlek* is not something entirely new to the practice of distance coaching and running, but is a wise and basically sound training method which, if intelligently applied to the American competitive racing system, will make training more pleasant, more democratic in its emphasis upon individual initiative, and more healthful.

Furthermore, it will prevent the unjustified strains of inadequate, one-season training, and, in general, will undoubtedly improve distance performances in high school, college, and open competition.

(Ed Note: In a subsequent article in *Scholastic Coach*, the U. of Pennsylvania coach will dwell on the importance of mental attitude in distance running, stressing the implications of *Fartlek*, particularly the point that an athlete can run farther and faster and still not get tired.)

2

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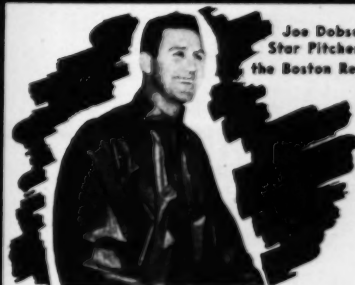
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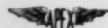
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Javelin Throwing

(Continued from page 36)

ing force. Tendency here is to deliver javelin too early.

Most top javelin throwers prefer a light-heeled track shoe with heel spikes, since traction is very important in the Finnish style of throw, especially in the cross-step.

As far as the javelin itself is concerned, there are probably less differences in its construction than in any other piece of track equipment. However, many of the world's top throwers employ Finnish javelins because of their "feel" in regard to whip and balance.

Training for the javelin is long and arduous. Great throwers as a rule seldom achieve real stature until their mid-20s. Hyttiainen, probably the greatest potential star in the world today, is only 23 years old and seems a sure bet for the 1952 Olympic title.

The following pattern of training is strictly built along the Finnish plan but elementary modifications can readily be made to suit American conditions.

After a post-season rest of about three months, the athlete should begin his winter training about mid-February, skiing 1½-2 miles daily, if possible, or doing comparable running to improve the endurance and build up the legs.

Skiing is particularly helpful, since the pushing down on the ski poles help build up the arm and back muscles. (In his 1932 training season, Jarvinen estimates that he pushed down on his poles at least 10,000 times.)

This program should be observed for about a month. When not skiing, the athlete should be walking a great deal, at least four times a week, alternating walking and jogging exercises. Some easy work on the flying rings, particularly hanging from the rings with one arm and swinging the body around the suspended arm, will help loosen the shoulder muscles.

About the middle of April, the athlete should forego the javelin and do a little work with the shot put for about two weeks. This is to strengthen the elbow and shoulder.

At about the first of May, he should take a few throws of about 60-75 feet, working only on form and approach. At least three weeks of form work should precede the first competition.

The sore-elbow menace may be kept under control by proper attention to the mechanics. Most of these injuries are due to improper throwing techniques, where the javelin

is pulled through away from the body rather than over the shoulder.

"I am convinced that many sore elbows benefit from throwing, despite the soreness, although the throwing must be done with caution at first. Inadequate pre-season conditioning with regard to both physical and mechanical training, is the basic cause of elbow injuries. Throwing hard after an inadequate warm-up is another frequent cause of the trouble." (Jarvinen)

Many American throwers retire just at the time they are beginning to catch on to the technique. In Finland, on the other hand, track athletes between the ages of 20 and 30 are commonplace. Skill, such as needed in the javelin, can only be mastered with 10 to 15 years of training.

Boxing Skills

(Continued from page 32)

plish anything. It is far better to learn how to guard properly by covering up the jaw and body and thus be less apt to be hit.

Even though it ordinarily is poor policy to cross your hands over the head or body, there are times when this shell-like defense should be used. When being punished around the head and body is one occasion. It is then advisable to cross the hands over the punished parts. This serves to eliminate a certain amount of punishment you would ordinarily absorb if you were not so well guarded.

You may also use this defense occasionally as a subterfuge, leading your opponent to believe you are hurt and thus causing him to become over-confident and over-anxious and to leave himself open for your blows.

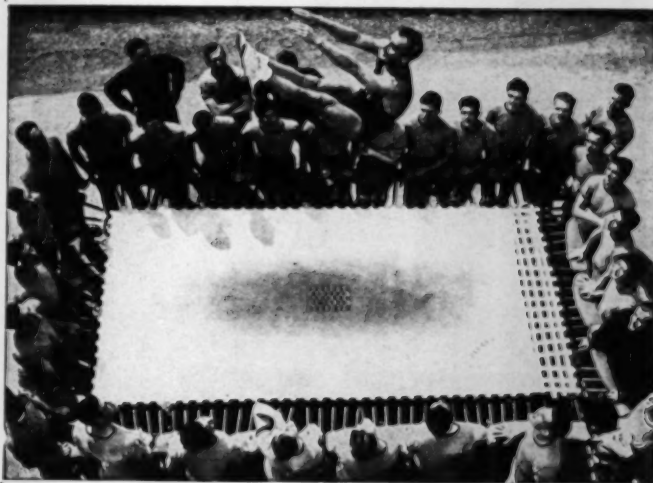
Roadwork is probably the most important pre-fight training medium there is. In the ring where endurance is the prime factor in establishing any kind of pace and absorbing punishment, it is the boxer who has done his roadwork diligently who will survive. There is no better exercise for strengthening the legs, increasing the lung power, and building stamina.

Jog along, breathing deeply and evenly. Never go to extremes; don't run until exhausted. Use your own judgment as to the distance to cover. In time you will find yourself traveling farther and farther without exhausting yourself.

A good way to sharpen the wind and build up the reserve force known as second wind is to sprint about 100 yards full speed and then walk about 100 yards. This will enable you to recover your breath before sprinting another 100. Try not to overdo it, however. Take this in moderate doses until you have become accustomed to it.

Always wear warm clothing and heavy shoes during the road runs.

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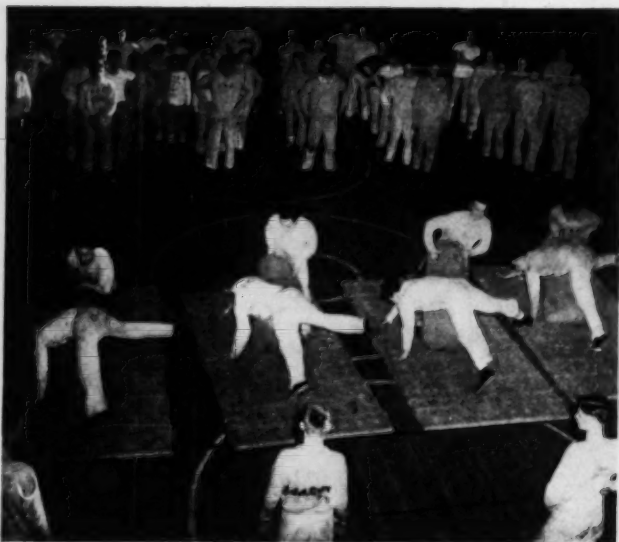
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Carrick High's Conditioning Club working out in the gym on football fundamentals.

Athletics as a Motivating Force

By **RALPH R. ZAHNISER**, *Carrick H. S., Pittsburgh, Pa.*

ATLETICS are an essential part of our democratic way of life; both are inter-dependent. Without democracy, our system of athletics could not flourish; and without athletics, our democracy would lose a vital, invigorating force.

When athletics are conducted in the spirit of fair play and true sportsmanship, the character "genes" imbedded in team work, willingness to sacrifice, and acceptance of umpire's decisions carry over in everyday living.

There are, then, two highly desirable essentials that all of us in the administration or coaching of sports must ever strive to promote: First, a high degree of sportsmanship on the part of participants and spectators; and, second, the extension of sports opportunities for all rather than a chosen few.

—And so, football and athletics in general have become an important part of our educational system; so important, in fact, as to be "viewed with alarm" by many educational leaders. Nevertheless, a wholesome school athletic program can be

maintained under proper guidance and leadership.

We here in Pittsburgh believe we are headed in the right direction. The philosophy of our sports program was aptly expressed by Dr. Earl A. Dimmick, superintendent of schools, in an article entitled, "Football Season and Success," in the *News Letter* distributed monthly to all city teachers.

"The excitement induced by turning leaves and Indian summer has been stronger than usual in Pittsburgh high schools this year. And this is not without reason. Our schools have had a successful season, not necessarily in the number of games won or in the number of points scored, but in the high standard of sportsmanship displayed and in the interest shown by students and public alike.

"The public high schools of Pittsburgh have never indulged in high pressure football and we trust never will. True, some teams are consistently more successful than others and some communities show greater interest in their teams. But there have been no instances of deliberate violation of the school athletic code and the play has been both hard and clean. Coaches have

not had to worry about their contracts, nor have gamblers found much opportunity to make easy money from exploiting our youth. Pittsburgh high schools play the game, but they never forget that it is a game, not a business.

"To the coaches who are content to instill the lessons of clean play and who think more of their boys' welfare than they do of winning, we extend commendations for a job well done; congratulations to principals for a sound administration of the sport, to players for a high quality of performance, and to the general student body for their support of their teams."

When I came to Pittsburgh over 25 years ago, I was told by the physical education director that I was employed primarily as a teacher of physical education and that athletics were part of the overall physical education program.

Coaches in the Pittsburgh schools have always been so regarded, and this accounts for the fortunate status of the coach as stated by our superintendent. During the quarter of a century of my experience as a teacher of physical education and as a coach of nearly every sport sponsored by our schools, there has not been a single instance in which a coach has lost his job as a result of pressure.

Carrick High School is not exactly a typical Pittsburgh school. Located in one of the better residential sections of the city, it is the smallest of 15 senior or junior-senior high schools.

There is one very small gymnasium which is shared with the girls, an excellent swimming pool, a small cement-surfaced, open court adjacent to the building, and an athletic field a bit too far from the school to make it practical for physical education classes to change into gym suits before going to the field. There are two men teachers of physical education who must do all the coaching.

Because of the limited facilities and personnel, the best that can be offered to non-members of varsity teams, is one period of gym, one period of swimming, and one period of health instruction per week.

Subtracting the time for change of clothing, shower, and roll call, a boy gets about 25 minutes of physical activity. Fifty minutes a week falls far short of the time required to develop the skills and ruggedness which is the right of every American boy.

Because of the inadequacy of such a program, every effort is

(Continued on page 61)

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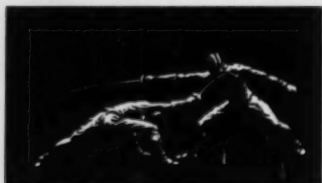
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New Books on the Sport Shelf

- **GOLF MANUAL FOR TEACHERS.** By Betty Hicks and Ellen J. Griffin. Pp. 312. Illustrated—photos and drawings. St. Louis: The C. V. Mosby Co. \$3.50.

ON the assumption that neither the golf pro nor the physical educator could prepare a comprehensive treatise on mass instructional methods, Betty Hicks, the former national champion, and Ellen Griffin, assistant professor of physical education at The Woman's College of the U. of North Carolina, have combined their respective talents, and the result is a superb teaching volume.

The instructional aids and procedures described in their text represent years of study and experimentation. Written beautifully and organized along the best educational lines, the book covers the subject in eight broad chapters, namely:

Golf and the physical educator, the game of golf, problems of group instruction, the theory of swing, techniques of teaching, correction of errors, supplemental exercises, and rules and glossary.

The writers do not presume to offer a best method of teaching golf. Their primary purpose, rather, is to present one teachable method for school golf instructors and for the average self-instructor. This they do admirably.

They present complete lesson plans and actual instruction in clear, practical terms, and also show how to organize the program and incentivize it. Teaching short cuts, rules, tournament management, scoring, play days, and other valuable teaching devices are highlighted, and illustrated with many exceptional photos.

Although the book is written by women and women's golf is given special attention in many sections, the techniques and methods apply to everybody.

(See adv. on page 51)

- **THE LAMARWAY TRACK OR SWIMMING SCORE BOOK.** Devised by Emil Lamar. 40 sheets. Berkeley, Calif.: University Athletic Equipment Co. \$2.

AN outstanding coach, author, and equipment authority, Emil Lamar, of Berkeley (Calif.) High School, has had considerable experience administering schoolboy track and swimming meets and thus knows the precise needs of the high school meet manager.

His ingenuity and know-how is reflected in this new track and swimming scorebook. Containing 40 individual record sheets, 10" x 13½" in size, it may be used for scoring dual, triangular, and other meets in which 100 or more schools are participating.

The book offers two types of forms for administering the meet. The first form is for recording the place winners of the various events as well as such pertinent data as place of meet, referee, starter, etc., while the second form offers a means of tabulating the running score.

It is all simple to follow and requires only one score-keeper.

(See adv. on this page)

- **MANUAL OF LIFESAVING AND WATER SAFETY INSTRUCTION.** By Charles E. Silvia. Pp. 173. Illustrated—photographs. New York: Association Press. \$4.50.

INASMUCH as the progress of lifesaving and water safety has always been retarded by the lack of a thoroughly illustrated manual for instructors, this volume comes at an extremely opportune time and should be received with open arms by every man in the field.

The author, a physical education professor at Springfield College, has done extensive research work in the field and his book represents one of the most careful summaries ever made.

Written clearly and pointedly, it covers the field along 12 basic lines: Seeking a Perspective; Organization and Administration of Instruction; How to Teach (includes a course outline for 22 classes plus a theoretical examination); Prerequisites; Recovery of a Submerged Victim; Personal Safety; Non-Swimming and Swimming Assists; Approaches and Carries; Defensive Tactics, Releases and Water Safety; Equipment Rescue; Lifts, Carries, and Let-Downs; and Resuscitation.

Over 100 sharp, exceedingly helpful photos illustrate the techniques, and an excellent bibliography appends the text proper.

Many of the techniques illustrated were developed by the writer and his assistants during the past 10 years, others were adapted to use in the water, and still others have been modified to eliminate waste motion and to improve mobility.

Every instructor of lifesaving can well employ this volume as a basis for their class lesson plans.

- **REPORT OF THE U.S. OLYMPIC COMMITTEE 1948 GAMES.** Edited by Asa S. Bushnell. Pp. 388. Illustrated—photos. New York: U.S. Olympic Assn. \$3.50.

ANYBODY looking for a complete factual record of the 1948 Olympic Games will find the perfect answer in this stunningly turned-out 388-page official report.

(Concluded on page 57)



- The growing popularity of golf in the physical education programs of many schools has emphasized the need for a complete text on group instruction. Believing that neither a golf professional nor a physical education teacher could alone successfully undertake a comprehensive presentation of mass instructional methods, the authors of *Golf Manual For Teachers* have combined their knowledge of golf technique and their experience in group teaching in a single volume.

GOLF MANUAL FOR TEACHERS

By **BETTY HICKS**, 1941 National Women's Golf Champion; 1944 All-American Open Champion; 1945-46 President, Women's Professional Golfers' Assn.; 1945-46 Golf Instructor, Pomona College, Claremont, Calif.; and

ELLEN J. GRIFFIN, B.S., M.A., Asst. Professor of Physical Education, The Woman's College of The University of North Carolina.

312 Pages

105 Illustrations

PRICE, \$3.50

• The problems of school golf have been studied over a period of years by the authors and they have thoroughly tested the solutions presented in actual teaching situations. Instructional aids and procedures are described in detail.

• Although the book is written by women, the techniques are not intended to be employed exclusively in girls' and women's physical education. Nor is it intended only for the use of group golf

instructors. Golf club chairmen and recreation leaders will find it handy for tournament types and management and individual golfers will find suggestions for improving their game.

• Several golf authorities have written sections of the book and the majority of the illustrations and diagrams are by Betty Hicks. Most of the illustrations are actual photographs of Miss Hicks or other professional golfers demonstrating good golf technique.

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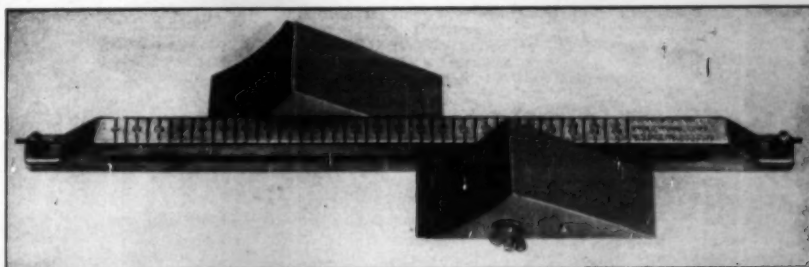
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than half the distance to the sideline.

Where more than one step is required to reach the shuttle, the last step should be the longest with both the back foot and the front foot arriving in position to complete the stroking of the shuttle. Do not overstride and throw yourself off-balance. Short steps at the beginning of the run will mean a quicker start and give you more time to adjust your footwork for the final longer step.

DISTANCE BETWEEN FEET

The distance between the feet when in stroking position depends on the type of shot being played. The higher the shuttle is hit, the more upright will be the body; consequently the feet will be closer together than for any other normal stroke.

For example, during a forehand smash directly overhead, with the body attaining its utmost reach, the feet will be only a few inches apart. Whereas, when the body is stretched sideways to its full capacity for a shot near the floor, the leading knee will be well bent and the feet will be as far apart as it is possible to get them and still retain balance.

Badminton Footwork and Body Balance

(Continued from page 18)

This longest distance between the feet varies with the height of each individual and the normal length of their walking stride, but for the average person, the longest distance between the feet when hitting the shuttle is between 35 and 40 inches.

On the highest shots, by raising the heel of the forward foot and allowing the balance of weight to flow up on to the ball of the foot, the body can be raised three or four inches higher, thereby giving you a steeper angle of return on your shot.

The body weight is naturally retained longer on the front foot when the longest stride is needed to reach the shuttle than it is when the shortest step is used. Hence, as the shuttle drops closer to the floor and the distance between the feet increases, the flatter the front foot has to remain during the stroke.

It therefore takes longer to recover perfect body control from a long stride than from a short step, which emphasizes the desirability of moving the feet rapidly into position rather than relying on lazier footwork and a longer stretch.

To save an unnecessary step, a pivoting or swiveling movement on the ball of the foot nearer to the shuttle, greatly speeds up the turning of the body towards the shuttle and helps bring the other foot up, forward and across in position for a stroke.

Some tournament players, instead of relying solely on the pivoting or swiveling on the ball of the foot, sometimes use a low hopping type of jump to combine the turning of the body and the movement of the first step of the run toward the shuttle. These jumps, although low, place more strain on the leg muscles and are more tiring than using the foot swivel only, but they can be used to advantage at times.

Where it is necessary to go back for deep forehand overhead strokes, swivel the body sideways to the right on the left foot and, at the same time, let the right foot lead the way in a series of fast side steps toward the backline. The left foot is drawn up to and replaces the right foot as the right foot takes

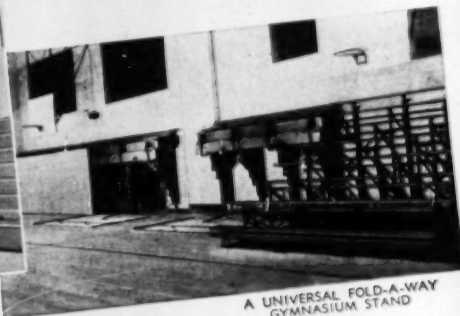
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another side step on toward the backline.

Since the shoulders will be parallel to the right sideline; the body will arrive in the back court already turned sideways with the weight balanced on the right foot, where it must be to start the swing for the longest of all forehand shots—a full length clear from one end of the court to the other—which, to be completed successfully, demands a full vigorous swing of the arm backed up by a perfectly coordinated forward body motion.

RESTRICTED BODY MOVEMENT

To gain a little more time and freer swing motion on shots directed quickly toward your body, the left foot can be drawn backwards away from the oncoming shuttle for backhand shots and the right foot away from the shuttle for forehand shots.

In practically all cases where the shuttle is coming directly toward you, a backhand will be easier to complete as the right arm (the hitting side) is advanced ahead of the body, leaving space for the racket to move across and forward into the line of flight of the shuttle; whereas, on the forehand, the right arm is behind the body, thus making it more difficult to take the body out of the way of the racket.

It may not be possible to put much strength into these close-to-the-body shots, but even in the most desperate of situations where only a wrist flick can save you in such cramped quarters, every effort should be made to retain body balance in order that you will be better prepared to continue the rally.

For the Track Meet

(Continued from page 24)

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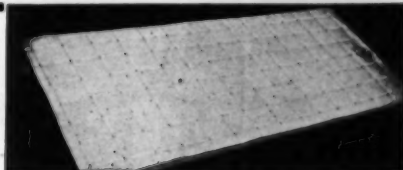
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*Send for the 1950 edition of "Physical Education, Athletic and Recreation Aids," describing the current Institute aids available.

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Pitching Polish

(Continued from page 11)

is not to telegraph the pitch. A dummy batter standing at the plate can help out here by attempting to call the pitches. If he proves consistently right, check on your pitcher's facial expressions, hands, body motions, gloved hand, etc. During the actual delivery, the ball should be hidden in the glove with the back of the mitt facing the batter.

Following are a few of the more common symptoms of faulty control, plus their cures:

1. A fast ball that is consistently too high: Take a longer stride, hold on to the ball longer, have the catcher work from a lower position.

2. A fast ball that is too low: A shorter stride, a quicker release, high target and stance by the catcher.

3. Curve-ball trouble. Curve too high (a curve must be kept low to be effective): A longer stride with a slower release. Curve too low: Opposite treatment. Curve won't break sharply: Use more wrist snap, and in some cases move the thumb slightly lower or more underneath the ball.

4. Missing the corners: Move over on the rubber equal to the distance of the missing; i. e., if you are missing the corner for right-handed batters by six inches, slide the pivot foot six inches over to the first base side.

5. Other causes for lack of control: Failure to train eyes on the target, poor follow through, off balance, fear of own inequality. (Needs mental stimuli by the coach in terms of praise and mental build-up.)

In addition to being able to throw with speed and accuracy, a pitcher must be able to field his position. The key to good fielding is anticipation—mental alertness—"to be forearmed."

TWENTY years experience playing, managing, and umpiring stand behind this article. Sidney (Sam) Hale played three years of baseball at Ohio State U., then put in three years of pro ball. Since then, he has coached high school and college teams for 15 years, served three years as an umpire in the Kitty League and the Southern Assn., and, more recently, has been instructor of umpires for the Queens City Assn. (Cincinnati and outlying districts).

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Certain tactical situations virtually shout their solution. One of these is the bunt. As a respite from excessive throwing, spend a little time on some of the aspects of bunting.

A specific bunt situation that can be practiced in the gym is that with runners on first and second, none out, and the score close. A smartly coached pitcher can recognize this situation and pitch accordingly. He should throw high and fast—inside to right-hand hitters, and outside to left handers. This pitch forces the batter to bunt down the third-base line where the pitcher can cover the ball and throw according to the catcher's directions.

Curve balls and slow stuff are not recommended in bunt situations, as they are too easily placed and are seldom popped up.

With runners on first and second, the second baseman covers first, the shortstop keeps the runner on second close to the bag, and the first baseman, third baseman, and pitcher cover the bunt.

Most of the responsibility rests with the pitcher, as the third baseman has other things to think about—covering the bag in case of a force and protecting the bag against a fake bunt followed by a steal behind him. The third baseman goes for the bunt only when it is out of the pitcher's reach.

You can give the pitcher practice in "bouncing off" the rubber for bunts by putting up a bunter at the plate and feeding him moderately thrown balls.

To get your pitchers conscious of the fact that they must break towards first on all slow hit balls to the right side, have a manager roll

(Continued on next page)

New Books

(Continued from page 50)

Prepared by the U. S. Olympic Assn., the book offers a detailed review of everything that was done to select, organize, equip, and transport our teams, and how they fared in the actual competition. All in all, it contains 26 individual sports reports (by each team's committee chairman), plus other absorbing memorabilia and the complete results of each event.

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Pitching Polish

(Continued from page 57)

slow grounders to the first baseman with the pitcher covering first.

The toss by the baseman must be soft and chest high with a lead of at least two steps *before* the pitcher reaches the bag. The diagram illustrates the correct way of approaching first (running parallel to the foul line) and the incorrect way (running directly to the base).

After some degree of form and reliability have been acquired in the fielding of bunts towards both first and third, move on to some pick-off plays. Here is a good one with an ambitious runner on first.

As the runner leads off, the pitcher throws to first with a moderate motion. The runner will invariably beat the throw back with ease, encouraging him to assume a bigger lead. Again the pitcher pegs easily to first, again the runner beats the throw back, and again he assumes a bigger lead. The build-up is now complete. A quick turn with a fast throw will often catch this type of runner.

PICK-OFF PLAY

Some runners have a bad habit of leaving the base before the pitcher moves onto the rubber. They may be picked off as follows: After a throw to the first baseman, the pitcher takes a few steps towards first to meet the return throw. Upon receiving the ball, he starts walking to the mound with his back turned to the prospective victim. A signal from the third baseman or shortstop followed by a quick turn and throw, will often trap the runner moving off the base.

The pick-off play at second base is a thing of beauty, but it is strictly a precision play. The necessary teamwork can be started in the gym.

As shown in the diagram, the shortstop must shorten up behind the runner, that is, come in and stand behind him. The pitcher actually glances at the runner as he receives the sign from the shortstop. The pitcher then turns his head away and looks at the plate. This is usually the signal for both defensive men to start a silent count.

On a pre-arranged throwing signal, the pitcher wheels to his left and throws to the shortstop at the bag. The shortstop starts for the bag two counts ahead of the pitcher's pivot.

(The pick-off plays at first and second were beautifully illustrated by Hal Schumacher, the famous ex-Giant hurler, in the March 1949 issue of *Scholastic Coach*.)

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Extra! Now available for physical education classes is a Flying Fleece very Light Medicine Ball possessing the same life, playability, and cushioned impact of every Flying Fleece Ball. See the advertisement on page 43.

If not available at your dealers send direct to

OREGON WORSTED COMPANY
8304 S. E. McLoughlin Blvd., Portland 2, Oregon

Right Training

(Continued from page 22)

ankle on the hurdle, he needs to lean forward more in clearing. If he is hitting his knee, his body lean is probably O.K.

If the boy hurries his trailing leg, he is jumping off it. Concentrate on his lead leg. See that his trailing leg comes through late and fast, with toe turned to the side. When that trailing leg comes through, emphasize the high knee lift.

If your boy has been hurdling indoors, check his action as he starts to hurdle outside. If he has been running three flights indoors, see that he does not break his striding rhythm after the third hurdle outdoors. Watch for this fault after the fourth hurdle if he has done four flights indoors.

Don't neglect to give your low hurdlers frequent sprints of 300 yards. When there are heats, semi-finals, and finals in a big meet, endurance is a vital factor.

Chalk dust sprinkled on the ground or floor near the hurdle will show the landing spot and also the position of the landing foot. See that it points straight ahead.

When you have selected your prospective quarter-milers and start planning their work schedule, the results hinge almost entirely upon one factor. If you ask me how fast your quarter-miler can be at his distance, I'll counter with the question, "What is his best 220?"

If a boy goes all out to hit 24 seconds for one 220, you can be sure that he is capable of not more than a 52 quarter. As his top 220 time goes up, so does his limit in the 440. You may argue that your boy starts slowly and finishes very strongly. Fine! Just remember, though, that he is racing a stop watch.

If his absolute limit in one 220 is 25 seconds, then he must run his starting 220 in the quarter mile a second or so slower because he has another one to add to it. This means that his second is not likely to be quite as fast as his first unless he is holding out on you. His quarter mile then is likely to be between 53 and 54.

On the other hand, if a boy can race 23.5 around a turn, he can carry 24.5 through his first 220 and finish with a 25-plus for a quarter under 50 seconds.

In training your quarter-miler, you need to use some old-fashioned commonsense. No matter how fast your boy is, it is unwise to have him go under 24 seconds for his first 220. Only a national champion will



A GREAT DAY IN BASEBALL

THE TEN RUN RALLY, OCT. 12, 1929

World Series, Fourth Game, Athletics vs. Cubs

Chicago led 8 to 0. Philadelphia was at bat, last of the seventh. The first man up hit a home run. The last batter fanned. In between came nine more hits and nine more runs.

Final Score: Athletics 10—Chicago 8

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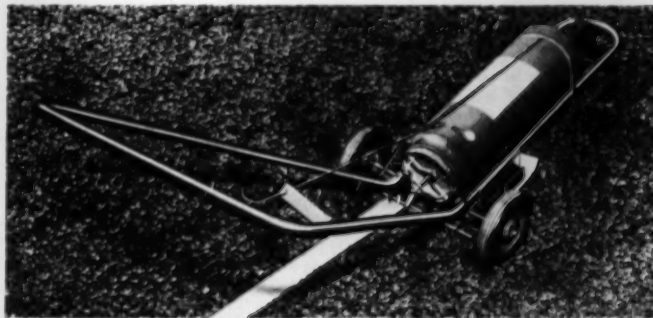
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PRICE \$5.00 PR.

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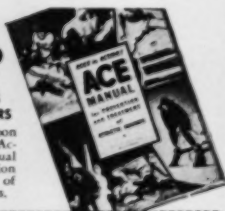
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AND TRAINERS

Mail this coupon
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for the prevention
and treatment of
athletic injuries.



Becton, Dickinson and Company
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Rutherford, New Jersey

Please send me a free copy of "Aces
in Action."

Name _____
Address _____
City _____ State _____

be able to do it without finishing on
stilts.

No high school boy should hit 23
for his first 220 if he is to run his
best 440. If he has sprint ability,
get him out there in front, by all
means. But keep him within limits,
and teach him pace so that he will
know his limits. If you want to
check your boy's quarter at any
given time, you can do it by check-
ing his 220's.

I like lots of 100's and 220's for
speed work for quarter-milers. For
boys who are finishing short, I may
change to 330's and some 400's.
Over-distance work I like to keep
centered about 660 yards. I don't
like to go above that except for an
occasional half or three-quarters.

Your half-miler is another boy
whose training schedule must be
governed by his limitations or he
will go downgrade rapidly. If he is
good and promises to hit two min-
utes for his half, work hard with
him on pace. Have him run 60-sec-
ond quarters until it becomes an
automatic pace. Unless he is that
rare find, don't let him go under 59
for his first 440 in a race.

Furthermore, it is almost suicidal
for a high school half-miler to go
under 58 for his opening quarter.
Those who can do it are the Carl
Joyce's, Mal Whitfield's, and Herb
Barten's of tomorrow.

While some may question their
use, I like 220's for speed work for
the half mile and quarters for pace
work. I like to have boys get into
the practice of kicking off the last
turn of 660's, not with a sprint but
with a definite lift and application
of power such as would be used in
the beginning of the last 220 of a
half.

I like three-quarters of a mile
for most over-distance work for
half-milers, and frequent doses of
pick-ups to prepare boys for passing
opponents in races.

What training you use for your
prospective miler should be deter-
mined to some extent by what he
has done during the rest of the year.
If he runs the mile in the spring
and you have no indoor track or
cross-country, then his basic work
for the first month must be distance
work.

In this he must be made to stride
rather than jog, after the first few
days. He will need a training pro-
gram which includes over-distance
running at least once a week.

His speed work is likely to be
centered on quarters according to
his ability—75 seconds for quarters
if he is aiming for a five-minute
mile. Tie three of them together for
him and then start a 72-second pro-
gram. Drop that to 70 seconds as he

shows promise, but don't set a goal
beyond his reach. He has missed his
cross-country background, which
has become a "must" for high school
milers of any note.

The boy with a cross-country
background presents a different
problem. His work now centers on
fast 440's and 880's with a few
good stiff three-quarters thrown in
occasionally. Don't let him loaf. If
his cross-country showed strength,
teach him to carry speed with the
same relaxation that he had in the
longer races.

How fast should he do his first
quarter? The answer is seldom bet-
ter than 65. Unless he is the excep-
tional boy who goes into the 4:20's,
he cannot carry a minus 65 first
quarter and last. Let him hit about
72 and follow with 75's if he is
aiming to break 5 minutes, and let
him hit 70 and follow with 72's if
he is trying to go below 4:50. That
wide-open first quarter intended to
kill off the opposition often kills off
your boy, too.

MUST LEARN PACE

Insist that your boys learn pace.
If you ask for a 70-second quarter,
you don't want a 68 or 72. He must
learn that. He must also learn that
in the heat of competition he is
liable to be carried along by his
opponents. He may be doing a quar-
ter or a half beyond his capacity.
If he is caught in this trap, as many
green runners are, he will be a sad
sight as the final quarter gets under
way.

In concluding this discussion of
training, I might add a note of
warning. Most of us coaches are
blessed with a star or two and a
smattering of mediocre runners.
Much as we would like to have them
all stars, we cannot do so.

If we test for abilities and place
men according to the strengths in-
dicated by these tests, we have done
half our job. When we recognize
the limitations of the boys we have
paced and guide them through a
sensible training schedule, we have
done all we can to develop a suc-
cessful runner and a winning team.

I have held strictly to the run-
ning events in this article, but I
hope to follow it with another in
which the field events and relays
will be treated in some detail.

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Specialized PLACEMENT service
Efficient—Discriminating—Nationwide
Optional enrollment plans

INTERSTATE ADVANCEMENT BUREAU
2700 North Grand St. Louis (6), Missouri

A Motivating Force

(Continued from page 48)

made to reach as many boys as possible through a voluntary after-school program.

With the head football coach also coaching basketball and track, plus fulfilling most of the duties ordinarily assigned to a trainer and faculty manager of athletics, and the other instructor giving what attention he can to cross-country while assisting in football and coaching the swimming team and junior track, an after-school program, known as the Conditioning Club, functions from the close of the football season until late in June. Basketball is coached after this group is dismissed.

Membership in the club is a prerequisite to membership on an athletic squad, but as many boys as possible are accepted who have little potential athletic ability or aspirations. In the winter, because of the smallness of the gym, many boys who wish to become members cannot be accepted.

The size of the club is, therefore, limited to 115 boys—about one out of every three boys from ninth to twelfth grade. Twenty-five are on the swimming squad and 20 on the basketball squad. The others consist of those who will later go out for track or football, plus the non-athletic group.

In the winter, these boys are usually given about 50 minutes of vigorous activity such as running, calisthenics, stunts, combatives, swimming, mass games, fundamentals of the various sports, and basketball on the outside court (weather permitting). Each boy is provided with

FOR the past 25 years, Ralph R. Zahniser has been teaching and coaching in the high schools of Pittsburgh. In his five years at Carrick High, his football teams—competing against schools two, three, and four times as large—have won two city sectional titles, losing only three league games and currently boasting a winning streak of 14 city league contests. His track teams have captured the city championship for the past three years and his basketball clubs have won over 75% of their games. A sculptor of note, Coach Zahniser is a frequent exhibitor in the annual art exhibit of the Associated Artists, winning first prize in 1943 for a piece of ceramic sculpture called, "Scrimmage."

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COUNTY
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YARD
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1949

SILK SATIN Track Award Ribbons FOR PLACEMENT WINNERS

- Lettered in GOLD LEAF in all places on high quality silk satin.
- FIVE COLORS available for placement winners: Blue—first place; Red—second place; White—third place; Yellow—fourth place; Green—fifth place.
- Official, Judge, Starter, and Coach in Gold on White Ribbon.
- Ribbons contain Name of Event, Name of Meet, Placement, and Year.
- All Standard Events for Track, Swimming, Literary Contests, and Playground Meets.

15¢ EACH (at least 20 Ribbons must be ordered)

House of Harter
30 Harter Bldg., Goshen, Indiana

a complete sweat suit and, except on extremely cold days, all running is outdoors around the small park near the school.

As soon as the weather permits, this group is taken to the athletic field and the membership is increased to as many as wish to join, often as many as 150.

The field program starts off with a slow jog of three or four laps followed by a short period of calisthenics and group practice in sprint starts, correct running form, steps in the shot put or discus throw, and the like. The boys are then divided into groups and practice their track events, or play softball and basketball on the two outdoor courts.

An effort is being made to acquire facilities so that horseshoes, volleyball, handball, and other activities which have more carry-over value, can be included.

Spring football practice is not permitted in Pennsylvania, and even if there were a coach available for baseball there is not sufficient

space to incorporate it into the conditioning program.

It is hoped that in the near future coaches will be retained for an all-summer program of inter-school baseball with the city high school league functioning as a twilight league. Baseball is not the popular high school sport it should be because of the short season and unsuitable weather so often encountered in the early spring.

Our conditioning program takes the place of the usual intramural program which, as ordinarily conducted, runs for one or two months during which time a boy is given an opportunity to play on a team once or twice a week.

We believe our conditioning club is much more beneficial because it is more vigorous and is conducted daily from November until June, except on the days of games or meets at home. Because of the many boys it reaches, it is more important than the inter-school program and fulfills the true function of the

coach as a teacher of physical education rather than a coach of varsity teams.

It is a source of considerable satisfaction to view a regular gym class of seniors and note the muscular development, posture, agility, and grace and ease of movement of over 50 percent of the class who have acquired these characteristics not through natural growth but as a result of our conditioning program.

While it is true that one of the important aims of the club is to function as a feeder for the varsity teams, it is just as true that many non-athletes and ordinary boys reap the benefits, and thus much more is able to be accomplished in the regular gymnasium, swimming, and health classes. The school becomes "condition" conscious and such valuable lessons as a balanced diet and other health rules become more functional. A definite desire to excel is inculcated not only in athletics but also in school work and in whatever else may be undertaken.

With but 45 out of every 100 youngsters who start out in the first grade graduating from high school, drop-outs are a matter of much concern to educators. Such a program does much to eliminate the two main causes of drop-outs—boredom and frustration.

Education should be a constantly happy experience in which children work, live, and play together as they will do in adult life. Normal youth cannot be expected to buckle down to a traditional lock-step system of education which neglects present interests with the hope of vague future rewards.



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The KIT is packed in a sturdy steel tool box, with complete easy-to-follow instructions.

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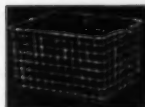
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- ☐ Details on Oxite Gym Mat Felt

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- ☐ Folder on Locker Baskets and Uniform Hanger

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☐ Information, Acromat-Trampoline
☐ Catalog on Basketball Backstops, Scoreboards

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- ☐ List of Sports Books

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- ☐ Booklet, "The Career for Me"

NADEN & SONS (57)

- ☐ Catalog on Electric Scoreboards and Timers

NATIONAL SPORTS (58)

- ☐ Catalogs: Bases, Mats, Rings, Training Bags, Wall Pads, Pad Covers

NISSEN TRAMPOLINE (47)

- ☐ Booklet, "Tips on Trampoline"

NORWICH PHARMACAL (4)

- ☐ Information on NP-27 Athlete's Foot Remedy

NUTTING, CHARLES W. (62)

- ☐ Information on Football Equipment Repair Kit

O-C MFG. (46)

- ☐ Information on V-Front Apex Supporters

OCEAN POOL (61)

- ☐ Catalog on Racing Trunks, Diving Trunks, Terry Robes, Kick Boards, Caps, Klogs, Nose Clips, Swim Fins

OREGON WORSTED (43, 58)

- ☐ Information on Flying Fleece Recreation Balls and Light Medicine Ball

PENNA. RUBBER (31)

- ☐ Catalog on Athletic Balls

POSTUM (41-42)

- ☐ 20 Introductory Samples of Postum for Track and Gym Athletes
☐ Training Table Menus for Team Members
☐ How many

RAWLINGS MFG. (3)

- ☐ Catalog

REVERE ELECTRIC (58)

- ☐ Sports Lighting Catalog

RIDDELL, JOHN T. (19)

- ☐ Information on Suspension Helmets, Shoes, Balls, Track Supplies

SEAMLESS RUBBER

- (Inside Front Cover)
☐ Information on Sav-a-Pitch Pitcher's Plate
☐ Catalog on Basketballs, Footballs, Soccers

SOLIN SPTG. GOODS (60)

- ☐ Catalog and Fabric Samples of Baseball Uniforms

SPALDING & BROS. (1)

- ☐ Catalog
☐ Sports Show Book

STEWART IRON (18)

- ☐ Information on Fences and Metal Specialties

SUPREME MARKERS (59)

- ☐ Information on New Wet Pressure Line Marker

UNIVERSAL BLEACHER (52)

- ☐ Two Level Floor Space Saving Plan

UNIVERSITY ATH. EQUIP. (50)

- ☐ Information on Lamarway All-Purpose Steel Uniform Hanger
☐ Information on Scorebook for Track and Swimming

WILLIAMS IRON (49)

- ☐ Grandstand Catalog

WILSON SPORTING

- GOODS (6)
☐ Catalog

NAME _____ POSITION _____

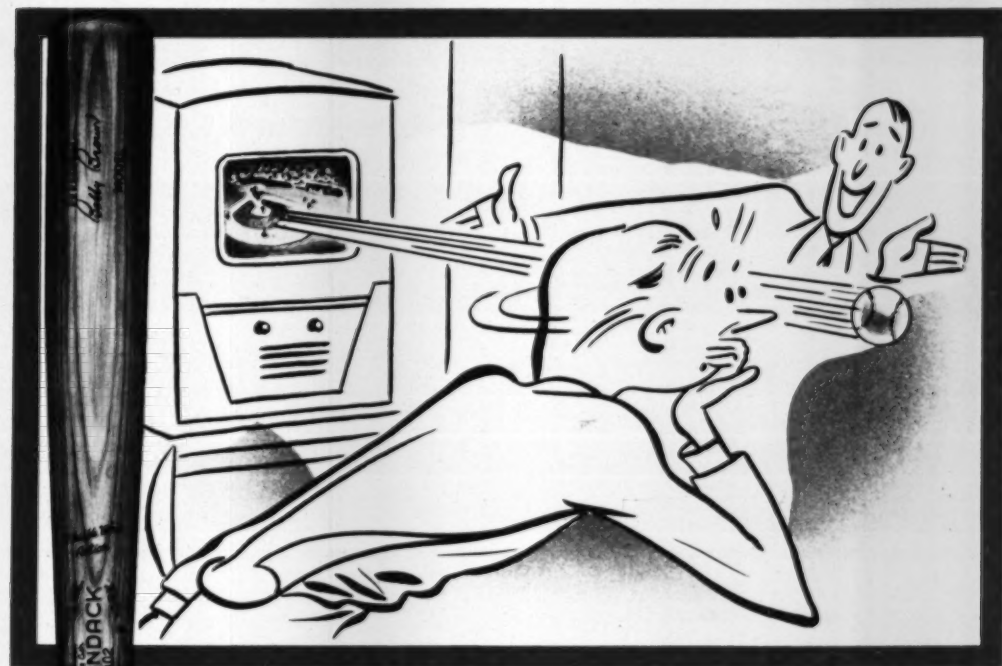
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SCHOOL _____ ENROLLMENT _____

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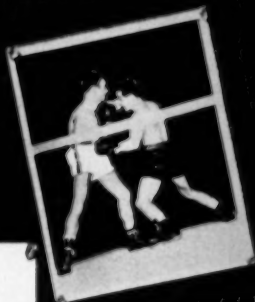
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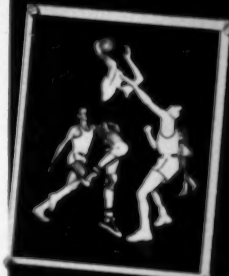


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